Interpon

POWDER COATINGS

Architectural

Interpon D
UK&I Approved Applicators Manual 2026

For Aluminiuim Building Products

2026 Issue replaces all previous versions.

Contents

1. Introduction

The aim of this document is to specify the technical requirements of “AkzoNobel”, which must be met for a coater to achieve Interpon D Range “Applicator” status.

“AkzoNobel”, reserves the right to inspect ”Applicator” premises and working procedures at any time without prior notice.

Adhesion of the cured film to the surface of the substrate being coated is the responsibility of the applicator, on the basis that they have the required process, expertise and competence to pre-treat the substrate and apply the Interpon D Range correctly.

All test panels, off-cuts and records referred to in this document and the guarantee shall be retained in good order for the period of any guarantee on the premises of the “Applicator”, being made available to “AkzoNobel”, on request.

This guarantee is only applicable to Interpon D product being applied to aluminium and aluminium alloy substrates as specified for building purposes only.

It is the responsibility of the Interpon D Range “Applicator” to correctly pre-treat all aluminium, curtain walling, cladding, extrusion, windows, rolled section and other components.

The quality management system operated by the Interpon D Range “Applicator” must clearly show that it covers, as a minimum; all the sections detailed in the “mandatory requirements”.

For the avoidance of doubt the quality control of the process is the function and responsibility of the Interpon D Range “Applicator”.

“AkzoNobel”, will carry out on a regular basis, checks to assess the Interpon D Range “Applicator” continuing ability to comply with the original criteria or approval.

Such tests and audits are carried out by “AkzoNobel”, for their own benefit and do not relieve the “Applicator” of its responsibilities in any way.

AkzoNobel Powder Coatings UK web store. Homepage - My Interpon Portal Full product information and online ordering facility is available through web store.

2. AkzoNobel Powder Coatings Architectural Range

The Interpon D Range is a complete offer of premium grade architectural powder coatings.

With over 40 years global track record the products from the Interpon D Range can provide coating solutions for all performance demands and environments.

The range encompasses three series of products which are available worldwide

Series	Description	Performance	UK Product Guarantee
Interpon D1000 Series	Standard durable for normal weathering environments and internal applications	AAMA 2603 BS EN 12206-1: BS EN 13438:2013 Qualicoat Class 1 GSB Florida 1	30 Years
Interpon D2000 Series	Ultra Durable finishes for more severe or hostile conditions	AAMA 2604 BS EN 12206-1:, BS EN 13438:2013 Qualicoat Class 2 GSB Florida 3	40 years
Interpon D3000 Series	Hyper Durable fluorocarbon finishes for the most severe locations and specifications	AAMA 2605-22, BS EN 12206-1: Qualicoat Class 3 GSB Florida 5	See Appendix

Interpon D Range products are available in a wide range of standard shades, gloss levels, special finishes and metallic effects. Many are held in stock and other colours or finishes can be made to order to ensure the best service to the specifier, fabricator and coater.

With products to meet all major architectural specifications including Qualicoat, GSB, American Architectural Manufacturers Association (AAMA), Australian Standard, British Standard, South African National Standards and Chinese GB specifications the architect has complete design flexibility.

3. Interpon D Approved Applicator Status.

Akzo Nobel Powder Coatings Ltd. (to be referred to as “AkzoNobel”), gives Interpon D Range “Approved Architectural Applicator” (to be referred to as the “Applicator”) status only to those applicators who have been assessed, and found to have metal pre-treatment facilities, powder application equipment and stoving facilities, which are considered to be of the appropriate standard to achieve the successful application of the Interpon D Range of Architectural Powder Coatings.

In addition, to achieve “Applicator” status a coater must demonstrate to the satisfaction of “AkzoNobel”, that the necessary quality management procedures are in place to achieve the quality and the continuity of quality, demanded by the architectural industry, Qualicoat/GSB or equivalent for non-system applicators and/or BS EN 12206-1.

Based on this commitment to quality, “AkzoNobel”, is prepared to offer up to 30 years guarantee, on Interpon D1036 and up to 40 years guarantee on Interpon D2525 ranges of products.

This agreement is for the benefit of the applicator only and is non-transferable in whole or part. Notwithstanding of other provisions of this agreement, the parties do not intend any term of this agreement to be enforced by any third party and a person who is not a party to this Agreement shall accordingly have no rights under the contract (Rights of third parties) Act 1999 to enforce any terms of this Agreement.

“AkzoNobel” worldwide marketing effort, its technical service facilities and the track record of the Interpon D range of Architectural products supports the Interpon D Range “Applicator”.

3.1. Approval Procedure

AkzoNobel reserves the right to offer Interpon D Range “Applicator Status” at their discretion.

When a customer approaches “AkzoNobel”, making a request to become an Interpon D Range “Applicator”, the following procedure must be followed:

1. Obtaining a Qualicoat/GSB or equivalent Licence
Completion of Qualicoat Test Program and the issuing of a Qualicoat Licence, together with the maintenance of a continuous quality control test program matching or exceeding the requirements of BS EN 12206-1. Some systems exceptions are possible providing the applicator can demonstrate adherence to the required standards and specifications.

2. Interpon Audit
On completion of the Qualicoat testing program, a full audit of the “Potential” Approved Applicator’s process controls and quality management system will be conducted - by “AkzoNobel” technical department.

3. Supply of Interpon D Powder
Interpon D powder may be supplied to the potential applicator during the appraisal period, but it will not carry an Interpon D Range guarantee unless accompanied by an approved project guarantee.

4. Approval Certificate
On satisfactory completion of the assessment program, a signed Interpon D Range “Applicator” certificate will be issued.

3.2. Auditing Procedure

The auditing procedure for maintenance of the Interpon D Architectural Approved Applicator will be as follows:

1. A formal full audit to be carried out at a maximum interval of 1 year – at least 1 weeks' notice will be given.

2. A second audit will be carried out, with minimum notice, to ensure that any recommended areas for improvement, as detailed in the first audit have been implemented.

3. Spot visits may be made, without prior notice.

4. During regular visits both technical and sales staff will complete a survey on housekeeping, maintenance and general finishing standards.

It is Akzo Nobel Powder Coatings Ltd. intention to promote Interpon D and Interpon D Approved Architectural Applicators as the premier powder coating for Building Systems in the UK.

Test Panels

Coated panels are NOT to be sent for testing without being requested by Akzo Nobel Powder Coatings Ltd. technical department.

The frequency of testing will depend on the results of any auditing.

Panels may be requested for Project guarantees, the request for panels to be sent will be shown on the Project Approval form, sent at the time of guarantee request.

3.3. Renewal procedure

A yearly audit by AkzoNobel Technical Service attendance is mandatory to ensure and renew the approval. If applicator holds Qualicoat/GSB license and annual audit by Technical Service has been passed, renewal of the certificate is possible for D1000/D2000. For D3000, if there is no change in number of lines and pre-treatment line conditions, extension of certificate to second year with no testing is possible for Qualicoat/GSB holders. However, testing must be repeated in every two-year time.

In case applicator does not hold Qualicoat/GSB license, annual testing of D1000/D2000/ D3000 and audit by AkzoNobel Technical Service attendance is mandatory.

Use of D3020 powder is mandatory for an applicator to be certified as D3000 approved applicator. In case of extension of the certificate, if pre-treatment line conditions and parameters of the applicator are same at the time of application (which should be checked and confirmed with audit form belonging to year of certification) D2525 powder can be used for renewal and results of tests (AASS and humidity) listed in Appendix 2 should be pass after 2000 hours.

3.4 Removal Procedure

AkzoNobel reserves the right to withdraw Interpon D Range “Applicator Status” at their discretion.

In the event of an Interpon D Range “Applicator” operating in such a manner that there is serious concern about the Applicator’s ability to meet the Technical Requirements of Interpon D range, non-adherence to specification or non-ethical practices “AkzoNobel” reserves the right to immediately withdraw or suspend the Interpon D Range “Applicator” Status.

Forced Liquidation, appointment of administrator, bankruptcy

At the appointment of an administrator (or official receiver) following financial or other factors changing the status of the company, the Approved Applicator Status is automatically terminated. To reinstate Interpon Architectural Approval it will be necessary to follow the procedures outlined in 3.1 Approval Procedure.

Change in Ownership

Following a change in ownership a full audit will be carried out, providing all procedures are followed in accordance with the technical requirements the approval will be maintained.

Change of Premises

When an Interpon Approved Applicator moves to new premises a full audit will be carried out, providing all procedures are followed in accordance with the technical requirements the approval will be maintained.

Cancellation of Interpon D Range “Applicator” status will be confirmed by 1st class letter post and will be deemed to be effective immediately.

3.5. Mandatory Requirements of Interpon D “Applicator” Status

3.5.1 Quality Management System

A fully operational quality management system is a prerequisite to ensure that the metal pre-treatment and powder application processes are carried out consistently and to the required standard.

“AkzoNobel”, requires that the Interpon D Range “Applicator” quality management system includes the quality checks as defined below:

Technical Standards
Variations to BS EN 12206-1/Qualicoat/GSB or equivalent.

The maximum delay between pre-treatment and powder application shall be 24 hours.

The conductivity of the deionised water draining off the metal at the final rinse shall be less than 30 micro siemens/cm (20˚C).

The average coating thickness, for standard coatings, shall be a minimum average of 60 microns with no value below 48 microns. Material technical data sheets should always be consulted for specific film thickness requirements. For critical colours refer to 3.4.9 Interpon D Colour Range.

No blisters, craters, pinholes or scratches shall be visible from a distance of 1 metre. However, note BS EN12206-1. specifies a distance of 3 metres for internal components and 5 metres for external components. It is recommended that clarification of this point is made with the end user.

Test Methods – D1000. Qualicoat Class 1. GSB Florida 1.

Applicator Test Methods and Procedures

Impact Resistance
Test in accordance with:
- ISO 6272-2: (impactor diameter 15.9mm: energy 2.5 Nm)

No cracking or detachment of the coating.
A fully cured film demonstrates high levels of adhesion when applied to an appropriate metallic substrate. An under cured film demonstrates poor adhesion and its film properties will suffer.

Flexibility
Test in accordance with:
- EN ISO 1519: (5mm cylindrical mandrel)

Adhesion
Test in accordance with:
- EN ISO 2409: (2mm crosshatch)

No detachment of the film. Classification = 0
No removal of the film under the tape should be evident. Any loss of adhesion is reported as percentage of squares removed (i.e. 10 squares lifted is 10% failure).

Wet Adhesion
Test in accordance with:
- Qualicoat Requirement 2.4.2 (2 hour boiling water)

Or

- BS EN 12206-1: 5.11 Pressure cooker test

The film should show no signs of blistering and the adhesion test gives no detachment of the coating when tested with an adhesive tape.

Drilling, Milling & Sawing
Test panels and component sections shall be subjected to Drilling, Milling and Sawing techniques that are typical of the fabricating process.

When subjected to the fabrication techniques described above, there shall be no flaking, tearing or removal of the film from adjacent surfaces.

Solvent Cure Test
Qualicoat describes a method using xylene (Qualicoat test 4i Tests on finished product - polymerisation test).

Test Methods – D2000. Qualicoat Class 2. GSB Florida 3.
(Qualicoat class 2 is applicable to Interpon D2525 only)

Applicator Test Methods and Procedures

Impact Resistance
Test in accordance with:
- ISO 6272-2 (impactor diameter 15.9 mm: energy 2.5 Nm)

Viewed with the naked eye, the coating must not show any signs of detachment following the tape pull off test.

Flexibility
Test in accordance with:
- EN ISO 1519: (5mm mandrel)

Viewed with the naked eye, the coating must not show any signs of detachment following the tape pull off test.

Adhesion
Test in accordance with:
- EN ISO 2409:

No detachment of the film. Classification = 0
No removal of the film under the tape should be evident. Any loss of adhesion is reported as percentage of squares removed (i.e. 10 squares lifted is 10 % failure).

Wet Adhesion
Test in accordance with:
- Qualicoat Requirement 2.4.2 (2 hour boiling water)
Or
- BS EN 12206-1: 5.11 Pressure cooker test

The film should show no signs of blistering and the adhesion test gives no detachment of the coating when tested with adhesive tape.

Drilling, Milling & Sawing
Test panels and component sections shall be subjected to Drilling, Milling and Sawing techniques that are typical of the fabricating process.

When subjected to the fabrication techniques described above, there shall be no flaking, tearing or removal of the film from adjacent surfaces.

Solvent Cure Test
Qualicoat describes a method using xylene (Qualicoat test 4i Tests on finished product - polymerisation test).

Test Methods – BS EN 12206-1.

Applicator Test Methods and Procedures

Impact Resistance
Test in accordance with:
- BS EN 12206-1. Section 5.8 (Falling Weight Test)

No cracking or detachment of the coating @ 25 Kg/cm impact.

For ultra durable powder systems (Interpon D2525) test as above, but followed by a tape pull adhesion test. The result shall be: Viewed with the naked eye, the coating must not show any sign of detachment following the tape pull adhesion test

Surface Appearance
When the coating on significant surfaces is illuminated and examined at an oblique angle with normal or corrected eyesight, no blisters, craters, pinholes, scratches, or other defects shall be visible from a distance of 1 metres. The coating shall be free from defects extending down to the substrate.

Gloss Level
Test in accordance with:
- BS EN 12206-1. Clause 4.5.5

The gloss level shall be within 10 units of the specified value for coatings of gloss greater than 50 units, and within 7 units for coatings of gloss specified to be equal to or less than 50 units.

Film Thickness
Test in accordance with:
- BS EN 12206-1., Annex C

The average minimum thickness of the finish shall be 50 microns and not less than 40 microns at any point.

Certain powder coatings, due to pigment strength, require a minimum thickness of 80 microns to ensure full opacity. For critical colours refer to: 3.4.9 Interpon D Colour Range

Adhesion
Test in accordance with:
- EN ISO 2409:

No detachment of the film. Classification = 0

No removal of the film under the tape should be evident. Any loss of adhesion is reported as percentage of squares removed (i.e. 10 squares lifted is 10% failure).

In addition to the process controls detailed, it is required that the general sampling frequency and inspection of finished components should be as set out in the inspection procedures of British Standard BS6001 Part 1: 1991. Inspection level 3 using normal, reduced and tightened inspection and appropriate AQL as required.

3.5.2 Laboratory Equipment

Equipment of a type that allows compliance to Qualicoat, and/or BS EN12206-1. should be available and should include:

- Titration equipment for pre-treatment evaluation
- Conductivity meter
- Gloss meter
- Dry film thickness meter
- Impact tester
- Crosshatch adhesion test
- Pressure cooker or boiling water testing apparatus
- Oven temperature recorder
- Machu test equipment (refer to Qualicoat)

3.5.3 Metal Substrates

The guarantee is applicable only where the quality of the aluminium and aluminium alloys meet the required standards:

Metal substrate Preparation
(Aluminium & aluminium alloys)

Conversion System (Chromate System, Chrome-Free or Pre-anodised)
The correct surface preparation of a metal substrate is critically important to the overall performance of any coating system subsequently applied. Where Chrome-Free pre-treatment is used, metal substrate should remain ‘wet’ between stages.

The following is a guideline to the pre-treatment and powder application:

Action	Description
Cleaning	Degrease Cold water rinse Alkaline or acid etch Cold water rinse Acid (de-smut) Cold water rinse Drain to avoid carry over Minimum etch 1.0 g/m^2
Pre-treatment	Chrome/Cr-free conversion (refer to chemical manufacturer guidelines) Cold water rinse
Final Conditioning	Demineralised / deionised water Must not exceed 30 microns/cm at 20°C Heat in oven to dry at maximum metal temperature 85°C

Both cleaning and pre-treatment can be carried out by spray or dipping, when using batch dipping in baskets the work must be loaded in such a way as to ensure total contact of the pre-treatment chemical with the work-piece.
The tanks must be of a size to ensure the total surface of the metal is in contact with the chemicals in one application.

The conductivity of the final rinse water draining from the work pieces must be checked at least twice per shift and must not exceed 30 microS/cm at 20°C.

To meet the requirements of BS EN 12206-1:, the final rinse water must have a conductivity not exceeding 30 microS/cm at 20°C.

Chrome Free System

Pre-treatment systems based on chrome free technology can be used, providing the system has "Qualicoat Approval" and complies with EN12206-1:.

Anodic – Pre-anodised System

This system must comply with Qualicoat section 3.4 Anodic Pre-treatment or GSB AL631 section 5.2.9 Pre-anodising with the aim to produce an oxide layer with high elasticity and low hardness. All parts must be suitably degreased and etched before anodising. The process should utilise a direct current sulphuric acid tank and the maximum anodic coating thickness of at least 4 µm (not more than 10 µm). Following the anodising tank the demineralised water rinse bath must ensure all acid is washed from the crystal pores. Drying temperature must not exceeding 80˚C. It is recommended a dot spot test is used to confirm the open porosity of the oxide layer. The conductivity of the dripping water from the final rinse must not exceed 30 micro siemens/cm (20˚C). Quality control of pre-anodised powder coated parts must include additional wet adhesion checks on each work batch or minimum every 4 hours in accordance with Qualicoat Requirement 2.4.2 (2 hour boiling water) or BS EN 12206-1: 5.11 Pressure cooker test

Substrate for Coating

The Interpon D Range can be applied to aluminium alloy provided the substrate meets the appropriate standards and correct surface pre-treatment is carried out.

Aluminium Alloys

The type of aluminium used in the manufacture of aluminium curtain walling, cladding, windows, extrusion and aluminium components shall comply with relevant section of:

EN485; EN515; EN573; EN754;

It is only to aluminium of these qualities that the Interpon D Range should be applied.

Alternative Substrates

- Guarantees are not normally available for the following substrates:
- cast aluminium
- stainless steel
- electro-plated steel
- thermal zinc metal coated steel

3.5.4 Pre-treatment

The pre-treatment required for use in the architectural market is detailed in BS EN12206-1:, and/or Qualicoat (Working specifications (3), Surface preparation for powder and liquid coatings (3.2), Chrome pre-treatment (3.3.1), Chemical pre-treatment (3.3.2) and/or GSB AL631 5.2.

In addition, a multi stage cleaning and conversion process is mandatory. The actual detailed method to be employed will depend on the metal used and its condition but the Interpon D Range “Applicator” must refer to the relevant architectural standard and must seek advice from the pre-treatment supplier.

The purity of cleaning solutions and rinse water must be checked at least twice per shift (i.e. 4 hourly) and because the conversion chemicals are consumed during the processing these must be controlled and replenished.

The pre-treatment supplier will advise on how to carry out such checking but titration equipment will be necessary to measure the solution strengths.

It is mandatory to use de-mineralised / de-ionised water or chromate conditioner as the final rinse. When using non-chrome systems always follow the manufacturer’s instructions.

In addition, the Interpon D “Applicator” shall make arrangements for the pre-treatment supplier to visit and report on the plant operation and as part of the applicators quality management system.

Such reports shall be made available to “AkzoNobel”, on request.

After thorough drying including careful draining of enclosed sections, the surface must not be contaminated. Powder coating application must take place within 24 hours.

Handling of pre-treated metal must be kept to a minimum and lint free, clean gloves must be worn at all times.

3.5.5 Stoving

All coatings must be stoved immediately after application in accordance with the relevant Product Data Sheets.

It is a mandatory requirement to check ovens in the following manner.

- At least twice in every 24 hours the displayed temperature must be recorded.
- Three times per week a stoving curve must be made. This must be done by using a “through the oven recorder” to measure the temperature between the coldest and hottest parts does not exceed 20°C.

Grant, Datapaq or similar recorders, provides a record of conditions including time of heat up to specified metal temperature, period at metal temperature and air temperature.

Such records must be available to check curing conditions and be retained for the period of the guarantee.

The curing schedule is available on the Product Technical Data Sheet and packaging label.

3.5.6 Tested Cured Items

The minimum tests required of the applicator are:

- Surface Appearance
- Colour
- Gloss
- Film Thickness
- Adhesion
- Impact
- Wet adhesion
- Drilling, Milling & Sawing

3.5.7 Sampling Requirements

The number of samples to be taken will depend on the production program.

For multiple colour changes, samples must be taken from each batch of work processed.

For long runs of single colour, a regular procedure must be defined, but this will require sampling of at least once every 4 hours.

Each case of sampling must include at least three panels and one off-cut. One panel for colour, gloss and mechanical testing, one panel and off-cut for wet adhesion testing, one panel to be retained on site with the quality assurance results.

All panels must be clearly marked with the traceable reference and details of the product and batch number.

Test panels (100mm x 150mm x 1mm SIC ½ Hard Aluminium) and work pieces/off-cuts must be run through the same pre-treatment and coating process concurrently with the actual work.

Test panels must be clamped tightly to the work pieces to precisely replicate the stoving period of the component.

3.5.8 Film Thickness

The thickness of the coating on significant surfaces of the actual work should be determined at a frequency to give compliance with the specified value in ISO 2360:

Procedure
The thickness on each significant surface of the coating on each part to be tested should be measured at no less than five measuring points with 3 to 5 readings taken at each measuring point. The average taken at one measuring point gives the measurement value recorded in the inspection report.

The cured continuous film on each significant surface must be in accordance with the thickness specification, for marine/corrosive environment refer to 5.2 guarantee matrix – UK/local.

It is possible with some colours that a higher film thickness will be necessary to achieve full opacity.

3.5.9 Interpon D Colour Range

The Interpon D1036 and Interpon D2525 ranges of powder coatings are free from both TGIC and Heavy metal pigments such as Lead.

The effect of changing the pigmentation has the following effects on the resulting finish:

1. To achieve full opacity (hiding power) it may be necessary to apply a higher film thickness.

2. Large differences in film thickness over coated substrates may result in unacceptable colour differences. It is necessary to maintain close control of application and film build.

Colours where a higher film thickness is required are shown on the Architectural Stock List, this document as well as the product TDS should be referred to before commencement of coating.

The recommended film thickness for Interpon D products is a min of 60 microns.

At the time of print the following colours must have a minimum of 80 microns cured film thickness to achieve full opacity on specific substrates. Individual product technical data sheets should be consulted for specific minimum film thickness requirements. Customers should ensure they are happy with colour on their specific substrate.

RAL Colour		
1003	1032	3011
1004	2000	3015
1006	2001	3016
1007	2002	3020
1016	2004	5004
1017	2008	9001
1018	3000	9002
1021	3001	9010
1023	3002	9016
1028	3003	

The mechanical performance, chemical and corrosion resistance and weathering properties are defined on the product Technical Data Sheet. Guidance notes are outlined below:

Film Integrity
The Interpon D Range when applied by an “Approved Applicator” when exposed in the (non-hazardous) UK environment for 30 years shall show no visible checking or cracking.

Test Samples
Only test samples (panels and off-cuts) that have been pre-treated and prepared in accordance with this document, and in accordance with BS EN 12206-1., and/or Qualicoat shall be use for the testing of the performance.

All test samples (tested and retained panels and off-cuts for future reference) shall remain on the premises of the “Applicator”.

Colour
The colour of the Interpon D range shall be chosen from the standard colours in the Interpon D range colour selector and specified by:
Product Type; Colour reference; Colour Name; Gloss; Interpon D product reference

Colour Consistency

Consistency of colour shall be assessed in general by reference to the conditions described in BS950. Part 1, “Artificial Day Light” for the assessment of colour.

Illuminant for colour matching and colour appraisal under light 750 lux to 3200 lux at a colour temperature of 6500°K at 45° unless otherwise specified.

Accepted limits of colour deviation shall be agreed on the basis of at least two samples for each chosen colour, or any other number representing the lightest and darkest hue, tone and intensity limit of acceptance.

Gloss

The gloss levels of the Interpon D range of products when applied in accordance with the Interpon D Range Technical Data Sheet shall be:

Product Range	Definition	Minimum Gloss using 60° Meter	Average Gloss using 60° Meter	Maximum Gloss using 60° Meter
Interpon D1036	Gloss	80	85	90
Interpon D1036	Satin	65	70	75
Interpon D1036	Matt	25	30	35
Interpon D2525	Gloss	85	90	95
Interpon D2525	Satin	55	60	65
Interpon D2525	Matt	20	25	30

As measured on the Gardiner Scale using a 60° incident light.

Critical RAL Colours for High Durability Powders

The following colours are not available in the Interpon D2525 ranges:

RAL Colour			
1003	2004	3015	4001
1028	2011	3017	
1033		3018	

The following colours are not available in the Interpon D3000 ranges:

RAL Colour						
1004	1003	2000	3000	4001	5001	6001
1005	1012	2001	3001	4002	5002	6002
1006	1016	2002	3002	4003	5003	6003
1007	1018	2003	3002	4004	5005	6006
1017	1021	2004	3004	4005	5009	6007
1032	1023	2008	3013	4006	5010	6008
1034	1027	2009	3014	4007	5011	6011
1037	1028	2010	3015	4008	5012	6012
	1033	2011	3016	4009	5013	6013
		2012	3017	4010	5019	6014
			3018		5020	6015
			3020		5022	6016
			3022			6018
			3027			6019
			3028			6020
			3031			6022
						6024
						6025
						6026
						6027
						6029
						6032
						6034
						6037

3.5.10 Technical Requirements

Reprocessing and Non-conforming

Non-conforming materials for any reason following final inspection will be processed according to the applicator's quality manual. This can be done in one of two ways:

Double Coating (Re-coating)

The only two-layer system approved is for a primer of Interpon Redox Plus, followed by an Interpon D topcoat

Two layers of Interpon D topcoat are not allowed. This process involves the non-conforming material being reprocessed through the coating booth and curing oven for a second time. The intercoat adhesion between the first layer of powder and the second layer of powder can be poor as powder coatings are normally formulated to give good adhesion only to metallic substrates and not to organic coatings.

This poor adhesion can lead to delamination of the top layer very quickly.

Components treated in this way do not meet the Technical Requirements for Interpon D and are not covered by the guarantee.

Chemical Stripping
This involves the work being immersed into a chemical stripper; the coating is then removed from the substrate.

When the components have been stripped back to bare metal and all the pre-treatment and powder coating have been removed, the substrate is then processed in the same way as with virgin metal.

For work that has been processed in this way and the performance complies with BS EN12206-1. and Qualicoat/GSB the guarantee is valid.

Technical Requirement
All work must comply with BS EN12206-1: and/or Qualicoat/GSB.

For full performance data please refer to the product Technical Data sheet, the following information is given as guidance only.

3.5.11 Powder Expiry Date

Interpon D products, to comply with some industry specifications, have a ‘manufacture date’ and ‘expiry date’ printed on the box label. The expiration date is usually 2 years from the date of manufacture.

Providing the powder has been stored under the correct conditions (dry and cool <30˚C) the expiration date can be extended by 12 months.

To allow an extension of the expiry date the product must first be tested to ensure no deterioration of properties & a signed extension with batch number and volume logged with AkzoNobel and a copy filed at the Applicator. Please contact your Akzo representative for the required documentation

4. Testing and Substrate Preparation

Weather and Chemical Standards

Natural Weathering

Interpon D range Architectural Powder coatings are tested under the following conditions.

Product	Florida Test	BS EN 12206-1	Qualicoat Class 1 / GSB Florida 1	Qualicoat Class 2 / GSB Florida 3
Interpon D1036	ISO 2810 Florida 5° South	Yes	Yes	No
Interpon D2525	ISO 2810 Florida 5° South	Specification exceeded	Specification exceeded	Yes

Accelerated Weathering

ISO 16474-2: test with luminous intensity 550 ± 20 W/m2 at standard temperature 65 ± 50 C (cycles 18 minutes wet followed by 102 minutes dry):

1000 hour test

Product	Gloss	Colour
Interpon D1036	Loss not greater than 50% of original value	Δ E in accordance with Qualicoat table 6
Interpon D2525	Loss not greater than 10% of original value	Δ E 50% of the value stated within Qualicoat table 7

Erosion Resistance

The Interpon D range, when tested in accordance with AAMA 2604 section 7.9 clause 7.9.1.5 shall pass and show less than 10% film loss.

Chemical Resistance (on aluminium panels)

Test	Standard	Result
Salt Spray Resistance	ASTM B117 at 35°C for 1000 hrs – D1036 3000 hrs – D2525 (AAMA 2604 – ASTM G85 Annex A5 1500 hrs)	No blistering, softening or detachment. Below 1.6 mm creepage from cut. Minimum rating 7. Minimum blister rating 8.
Humidity Resistance	BS EN 12206-1. EN ISO 6270: 1000 hrs – D1036 3000 hrs – D2525	No blistering softening or detachment; less than 1mm detachment from scribe.
Sulphur Dioxide Resistance	BS EN 12206-1. for 240 hrs ISO 3231: for 24 cycles	No change in colour, no blistering and no corrosion of the substrate.
Acetic Acid Salt Spray	ISO 9227: for 1000 hours	Rating A – not exceeding 3 mm infiltration from cross cut.
Muriatic Acid Resistance	AAMA 2604 section 7.7.1	No blistering or visual change of appearance.
Mortar Resistance	BS EN 12206-1. for 24 hrs ASTM D 3260: 2001	No effect
Detergent Resistance	AAMA 2605-22 Section 7.7.4	No blistering, visual change or removal of film.

5. Interpon D Guarantee

We operate in a global market: increasingly projects are specified or supported by contractors in several countries outside of the UK.

To ensure guarantee consistency a new guarantee will be offered and referred to as a European/Global guarantee and should be offered by UK applicators for projects both within the UK & globally.

The terms and conditions of this new guarantee for both Interpon D1036 and D2525 are outlined in pages 40-51.

In parallel with this new system, the previous UK guarantee will still be available to all Interpon D approved applicators. This will be referred to as the UK/Local guarantee and can be used at the discretion of the Interpon D approved applicator.

5.1 Classification of Environments

The ability of Interpon D range of Architectural Powder Coatings to protect and decorate aluminium is affected by many environmental factors including location, pollution, contamination, erosion etc. The effect of these factors is exaggerated when the location is hazardous such as a marine or industrial environment.

ISO 9223 provides tables of corrosion classes with typical environments for both atmospheric and immersion conditions. These environments are to be interpreted as an indication of the circumstances that the coating system is designed to resist for extended periods.

Classification	Typical Exterior Environments	Typical Interior Environments
C1		Heated buildings with clean atmospheres e.g. Offices, schools, shops, hotels
C2	Atmospheres with low level of pollution. Mostly rural areas.	Unheated buildings where condensation may occur e.g. depots, warehouses, sports halls
C3	Urban and industrial atmospheres, moderate sulphur dioxide pollution. Coastal areas with low salinity.	Production rooms with high humidity and some air pollution e.g. food processing plants, laundries, breweries, diaries
C4	Industrial areas and coastal areas with moderate salinity.	Chemical plants, swimming pools, coastal shipyards.
C5	Industrial areas with high humidity and aggressive atmosphere and coastal areas with high salinity	Buildings or areas with almost permanent condensation and high pollution and chlorides.

5.2 Guarantee Matrix – Aluminium Substrates – UK/Local

Environment		Interpon D System			
		Interpon D1036		Interpon D2525	
		Guarantee Period	Requirements[1]	Guarantee Period	Requirements[1]
Normal C3 Inland		**30 years** all finishes and gloss levels	Clean every 12 months	**40 years** all finishes and gloss levels	Clean every 18 months
Marine - C4 Coastal	2000m - 5000m from coastline	**30 years** all finishes and gloss levels	Minimum 60 microns Clean every 12 months	**40 years** all finishes and gloss levels	Minimum 60 microns Clean every 12 months
	500m - 2000m from coastline	**30 years** all finishes and gloss levels	Minimum 60 microns Clean every 6 months	**40 years** all finishes and gloss levels	Minimum 60 microns Clean every 6 months
Marine – C5	50 - 500m from coastline	**25 years** all finishes and gloss levels	Minimum 60 microns Clean every 3 months	**30 years** all finishes and gloss levels	Minimum 60 microns Clean every 3 months
	Less than 50m from coastline	Not available		Not available	
Industrial – C4	2000m - 5000m from source of pollution	**30 years** all finishes and gloss levels	Minimum 60 microns Clean every 12 months	**40 years** all finishes and gloss levels	Minimum 60 microns Clean every 12 months
	500m - 2000m from source of pollution	**30 years** all finishes and gloss levels	Minimum 60 microns Clean every 6 months	**40 years** all finishes and gloss levels	Minimum 60 microns Clean every 6 months
Industrial - C5	50 - 500m from source of pollution	**25 years** all finishes and gloss levels	Minimum 60 microns Clean every 3 months	**25 years** all finishes and gloss levels	Minimum 60 microns Clean every 3 months
	Less than 50m from source of pollution	Not available		Not available	
Swimming Pools	Greater than 2m from edge of pool	**25 years** all finishes and gloss levels	Minimum 60 microns Clean every 3 months	**25 years** all finishes and gloss levels	Minimum 60 microns Clean every 3 months
	Less than 2m from edge of pool	Not available		Not available	

Notes: Environmental classification as defined by ISO 9223 Subject to TDS**

5.3.1. Interpon D1036 Guarantee – UK/Local. For Exterior Architectural Application on Aluminium Substrates

Limited Guarantee for Interpon D Approved Applicator hereafter referred to as the APPLICATOR

Clause 1. During the Guarantee Period:

1.1 Checking/Cracking
No checking or cracking of the INTERPON D1036 on the exterior of the building will be observed on visual observation at a distance of 5 metres.

1.2 Colour Retention
Any colour change of the INTERPON D1036 on the building will be uniform across areas and surfaces receiving the same exposure.

Clause 2. In addition, at the time of delivery and when tested on panels, we Guarantee:

2.1 Gloss Retention
A decrease in gloss of less than 50% of the original gloss of INTERPON D1036 in compliance with the requirements of EN12206-1. after one year exposure in Florida facing South, at an angle of 5 degrees.

2.2 Adhesion
Adhesion of INTERPON D1036 when initially applied to test panels and measured by reference to EN ISO 2409 and Qualicoat 13th Edition Clause 2.4 will have classification

2.3 Chalking Resistance
No chalking of the INTERPON D1036 after 1 year Florida testing will be observed in excess of that represented by No. 8 rating based on ASTM D4214.

Clause 3. Terms and Conditions of the Limited Guarantee

3.1 The “Guarantee Period” for the limited Guarantees in Clause 1 shall mean a period of 30 years for the coating exposed to non-aggressive exterior conditions commencing on the date the INTERPON D1036 powder coating covered by this Limited Guarantee is used by the APPLICATOR or alternatively, six months from date of delivery of the specified INTERPON D1036 powder coating to the APPLICATOR, whichever is sooner.

3.2 The limited performance Guarantees in Clause 1 are strictly conditional upon i) Product being applied to the aluminium or aluminium alloys as specified in the Interpon D Approved Applicator Manual, or communications to APPLICATOR by AkzoNobel from time to time, in accordance with instructions contained on the relevant product data sheet (a copy of which is attached) and the relevant DIN, ISO, AAMA, Qualicoat or AkzoNobel Standard (as the case may be), and ii) retention by the APPLICATOR for the duration of this Limited Guarantee of (A) a minimum of two (2) test panels coated from each batch of product received by the APPLICATOR and (B) the records required by Section 3.5 below. It is understood that gloss, chalk and colour change may not be uniform if the surfaces are not equally exposed to the sun and the elements.

3.3 In the event of a valid claim AkzoNobel’s exclusive liability to the APPLICATOR, and the sole remedy of the APPLICATOR, under this Limited Guarantee, shall be to provide replacement coating material (which replacement material may be a coating, liquid, powder or otherwise, other than INTERPON D1036) and pay the proper costs of such reasonable labour and travel expenses as AkzoNobel deems necessary to repair the failure in-situ, provided that AkzoNobel shall not be liable:

i) for the first £2000 of such repair costs of each and every individual claim from any of the APPLICATOR's customers;

ii) for any claim whether arising in contract, tort (including negligence) or otherwise for any consequential, economic, or other direct or indirect damage, loss or expense including loss of profits, income, contracts, business, production or goodwill or for any claims made against the APPLICATOR by third parties;

iii) unless written notice is given to AkzoNobel by the APPLICATOR within thirty (30) days after the date of detection of the matter giving rise to the claim and, in any event, not later than 30 years for a claim under the limited Guarantees in Clause 1, one (1) year for a claim under the limited Guarantee in Clause 2.1 or thirty (30) days for a claim under the limited Guarantee in Clause 2.2, commencing on the sooner of the date that the specified INTERPON D1036 powder coating is used by the APPLICATOR or six (6) months from the date of delivery to the APPLICATOR;

iv) unless a valid claim can be established under this Limited Guarantee such that the APPLICATOR can prove to the satisfaction of AkzoNobel that 5% or more of the total coated area to which the specified INTERPON D1036 powder coating has been applied failed to meet the performance criteria referred to in Clauses 1 and 2, as a result of an error or defect in the formulation or manufacture of the specified INTERPON D1036 powder coating.

v) for any claim made, or arising out of, any damage or deterioration occurring during any period when the APPLICATOR did not meet the requirements for Interpon D Approved APPLICATOR status set out in the Interpon D Approved APPLICATOR Manual supplied to the APPLICATOR, of which the APPLICATOR hereby acknowledges receipt, or as communicated to the APPLICATOR from time to time.

vi) unless the APPLICATOR shall prove to the reasonable satisfaction of AkzoNobel that the specified INTERPON D1036 powder coating, as applied, has failed to meet the performance criteria in Clauses 1 and 2;

vii) if INTERPON D1036 powder coating is applied to substrate which has been pre-treated with a pre-treatment not approved by AkzoNobel.

vii) if any of the circumstances set out in Clause 3.4 below applies.

Notwithstanding any other terms of this Limited Guarantee, any liability of AkzoNobel is conditional upon strict adherence to the pre-treatment and application procedures set out in the requirements of the Interpon D Approved APPLICATOR Manual; or as communicated to APPLICATOR from time to time. AkzoNobel specifically excludes any liability for failure of the coating arising out of the APPLICATOR's failure to comply with any of these obligations or requirements including, but not limited to, any failure in the adhesion of the coating such as, but not limited to any blistering, de-lamination, or flaking of the coating.

AkzoNobel's total liability under this Limited Guarantee to the APPLICATOR in respect of any one claim or the aggregate of any series of claims relating to INTERPON D1036 shall not in any event exceed in the aggregate three (3) times the value of the original powder supplied for the relevant project.
3.4 AkzoNobel shall not incur any liability under this Limited Guarantee whatsoever in the event that any one or more of the following circumstances occur:

i) the pre-treatment, application, curing, testing and quality management procedures are not carried out strictly in accordance with the requirements of the Interpon D Approved Applicator Manual or

Product “Approved Applicator” status as communicated by AkzoNobel to the APPLICATOR in writing from time to time;

ii) damage to or deterioration of the coating system arising from causes beyond the control of AkzoNobel such as but not limited to mechanical damage, fire damage, malicious damage, pollution and abnormal weather conditions;

iii) where surfaces have been re-coated or touched up, or where more than one coat of INTERPON D1036 has been applied.

iv) where failure is associated with exposure of the coatings to temperatures in excess of 60˚C or to acid or other hazardous sources which are known, are believed to be or are damaging to powder coatings;

v) where failure is associated with exposure of the coating to the direct influence of zones of salt water unless prior to the application of the coatings AkzoNobel has consented in writing to the APPLICATOR to Guarantee the coating as applied to the property in a specific location;

vi) where INTERPON D1036 has been stored for periods of time not in accordance with the product data sheet recommendations;

vii) where the coated surfaces have not been maintained by the APPLICATOR in accordance with AkzoNobel’s recommended maintenance procedures;

viii) where failure is associated with the use of adhesive tapes or with the use of sealants or mastics;

ix) where failure is associated with jig marks or other fixing points;

x) where failure is associated with fabrication activity carried out after the application of the INTERPON D1036 including but not limited to bending, elongation, cutting, sawing, milling or drilling;

xi) damage or deterioration caused by any default or misuse of INTERPON D1036 by the APPLICATOR or any third party;

xii) any claim arising out of the use of INTERPON D1036 in conjunction with equipment or materials not set out in AkzoNobel’s published product literature or reasonably contemplated by AkzoNobel; and/or

xiii) where failure is associated with the development of any other condition between the INTERPON D1036 powder coating and the substrate, including the failure or deficiency in the pre-treatment.

xiv) The APPLICATOR is not an AkzoNobel Approved APPLICATOR on the date the APPLICATOR uses the Interpon D1036

3.5 The APPLICATOR shall maintain and in the event of a claim, shall make available to AkzoNobel or its nominees for inspection and/or copying, the following records:

i) pre-treatment plant records
ii) oven temperature records of curing ovens during stoving;
iii) application records and quality control records for each production job;
iv) maintenance records including details of washing and cleaning procedures;
v) any other data relevant the service history of the coating system.

In addition, the APPLICATOR shall arrange for AkzoNobel, should AkzoNobel so request, to inspect the property to which the INTERPON D1036 has been applied. Repairs under this limited Guarantee

may only be carried out by AkzoNobel or, after consultation with AkzoNobel, by an APPLICATOR approved by it in writing.

3.6 If, whether pursuant to this limited Guarantee, approval of the APPLICATOR as an approved APPLICATOR or otherwise, AkzoNobel carries out any testing in connection with the APPLICATORS's procedures or operation or makes any recommendations, suggestions or advice in respect thereof or provides the APPLICATOR, its employees, agents or contractors with technical advice relating to the use or application of INTERPON D1036 (including without limitation the matters set out in the Product Data Sheet) or plant and equipment used in connection therewith or otherwise (any such test, recommendation, suggestion, advice, technical advice, plant or equipment being referred in this Clause 3.6 as "Services"), AkzoNobel shall not be liable in respect of any act, omission, deficiency, neglect or otherwise in the provision of any Services or any matter associated therewith.

3.7 The APPLICATOR agrees that at all times hereafter to hold harmless and indemnify AkzoNobel against all third party claims for loss, damage, or expenses brought against AkzoNobel of whatsoever nature and howsoever arising caused by or related to INTERPON D1036, the coating system, its application, repair or replacement under this limited Guarantee, or by, or as a result of the provision of any Services, as that expression is defined in Clause 3.6 above.

3.8 This limited Guarantee sets out AkzoNobel's entire liability for any fault or claim arising out of or in connection with the quality or condition of all INTERPON D1036 supplied to the applicator. All guarantees, representations, conditions and terms, whether express or implied, written or oral as to any such matters, including any implied guarantees of merchantablility and fitness for a particular purpose are hereby expressly excluded to the fullest extent permitted by law.

3.9 This limited Guarantee will only apply where the property to which INTERPON D1036 is applied is installed on premises in United Kingdom and Eire.

3.10 Any alteration to or modifications of this limited Guarantee must be in writing and signed by authorised representatives of the APPLICATOR and AkzoNobel.

3.11 This Limited Guarantee is granted to the APPLICATOR alone as the purchaser of INTERPON D1036 and is non-transferable and non-assignable in whole or in part. The APPLICATOR shall not itself nor permit its agents, representatives or contractors to represent or to imply that this limited Guarantee extends to or is available to anyone other than the APPLICATOR. This limited Guarantee shall not be enforceable by any third party. All communications relating to this limited Guarantee shall be in writing and duly deemed served three days after it has been sent First Class registered mail, or immediately upon receipt if delivered by hand or properly sent by telex or facsimile transmission.

3.12 AkzoNobel's Terms and Conditions of Sale from time to time in force govern all sales of INTERPON D1036 except that in the event of any conflict between the Terms and Conditions of Sale and this limited Guarantee, the terms of this limited Guarantee shall prevail.
3.13 The words "checking", "cracking" and "chalking" have the meaning given to them in EN ISO 4618:

3.14 The word "exterior" in this Guarantee has the meaning as set forth in ISO 12944-2: (C3 classification)

Clause 4. Intellectual Property Rights

4.1 AkzoNobel authorises the APPLICATOR to use all trademarks used by AkzoNobel and/or its associated companies on or in relation to the Products ("Trade Marks") for the sole purpose of exercising its rights and performing its obligations under the contract entered into between AkzoNobel

and the APPLICATOR. For the avoidance of doubt, the APPLICATOR acknowledges that all Trade Marks belong to AkzoNobel.

4.2 The APPLICATOR is not authorised to use, register or have registered or attempt to register other trademarks, logos or domain names of AkzoNobel and/or its associated companies or AkzoNobel's authorised APPLICATOR logo without first having obtained a license from AkzoNobel.

4.3 The Products shall be sold under the Trade Marks and all Products, containers and advertisements for the Products shall be accompanied by an acknowledgement that the relevant Trade Mark is a trade mark belonging to AkzoNobel. The APPLICATOR undertakes that it shall not use AkzoNobel's name, the Trade Marks or any other trademarks or trade names belonging to AkzoNobel or its associated companies on any goods other than the Products which shall only be sold under AkzoNobel's Trade Marks and packed and presented as specified by AkzoNobel complete with AkzoNobel's original labels or markings which shall remain clearly visible without the addition of any other label, mark or name except the APPLICATOR's own name and address. The APPLICATOR will not at any time do or cause to be done any act which directly or indirectly impairs or endangers AkzoNobel's right, title or interest in any Intellectual Property which AkzoNobel owns or is licensed to use. (For the purposes of this clause, "Intellectual Property" means any patent, copyright, trade mark (including the Trade Marks), trade name, design (whether registered or unregistered), database rights or other industrial or intellectual property right in the Products, together with any applications for registration of such rights existing in any jurisdiction.)

4.4 All representations of the Trade Marks which the APPLICATOR intends to use shall first be submitted to AkzoNobel for approval.

4.5 The APPLICATOR shall not modify the Products or their packaging, alter, remove or tamper with any Trade Marks or use any of the Trade Marks in a way that might prejudice their distinctiveness or validity or AkzoNobel's goodwill in such marks.

4.6 All Intellectual Property and any literature, software application or database supplied by AkzoNobel under the Agreement shall be and remain AkzoNobel's absolute property. The APPLICATOR shall not register or cause to be registered in any part of the world any patent, trademark, trade name, copyright or design similar to, or any imitation of, such Intellectual Property.

4.7 The APPLICATOR agrees that any information contained in or subsequently entered into a software application or database provided by AkzoNobel shall belong to AkzoNobel and may only be used by AkzoNobel or as permitted under the Agreement and may be retrieved by AkzoNobel at any time.

4.8 The APPLICATOR shall immediately notify AkzoNobel of any infringement or suspected infringement of AkzoNobel's Intellectual Property rights and of any actions, claims or demands in relation to any Intellectual Property and the APPLICATOR shall render its assistance to AkzoNobel (at AkzoNobel's cost).

4.9 The APPLICATOR shall, without prejudice to any other rights of AkzoNobel, indemnify AkzoNobel for any loss suffered by AkzoNobel by reason of any use by the APPLICATOR of AkzoNobel's Intellectual Property otherwise than in accordance with the Agreement.

4.10 In order to endorse the status granted as an 'Approved Applicator', AkzoNobel also grants the APPLICATOR ("User") a license to use the trademark 'AkzoNobel Approved Applicator' that has been designed for this purpose only ("License"). The License is subject to the terms and conditions set out in Appendix 4. The Approved Applicator trademark is also included in Appendix 4. The License to use this trademark is applicable only so long as the APPLICATOR/User remains an Approved Applicator under the terms of its Approved Applicator contract.

Clause 5. Confidential Information

5.1 “Confidential Information” means any information, formulations, techniques, samples, specifications, equipment, technology, manufacturing processes, customer lists, information obtained from any database or software application belonging to AkzoNobel and/or its associated companies and any other information communicated by AkzoNobel to the APPLICATOR before or after the Effective Date, whether disclosed in documentary or other tangible form (including, without limitation, digital, electronic and magnetic media) under or in connection with the Agreement (whether orally or in writing and whether or not such information is expressly stated to be confidential or is marked as such).

5.2 The APPLICATOR shall at all times during the term of the Agreement and after its termination:

(a) keep all Confidential Information confidential and not disclose it to any other person, subject to clause 5.3; and

(b) not use any Confidential Information for any purpose other than the performance of its obligations under the Agreement.

5.3 Any Confidential Information may be disclosed by the APPLICATOR to:

(a) any customers or prospective customers;

(b) any governmental or other authority or regulatory body; or

(c) any employees of the APPLICATOR
only to the extent necessary for the purposes of the Agreement or as is required by law and subject in each case to the APPLICATOR using its best endeavours to ensure that the person in question keeps the same confidential and does not use the same except for the purposes for which the disclosure is made.

5.4 Any Confidential Information may be used by the APPLICATOR for any purpose, or disclosed by the APPLICATOR to any other person if:

(a) it is or becomes public knowledge through no fault of the APPLICATOR (provided that in doing so, the APPLICATOR shall not disclose any Confidential Information which is not public knowledge); or

(b) the APPLICATOR can show, to AkzoNobel’s reasonable satisfaction, that it knew it prior to its being disclosed by AkzoNobel.

Clause 6. Regulatory Compliance

6.1 The APPLICATOR shall comply with all relevant legislation, rules, regulations, codes of practice, guidance and statutory requirements that from time to time come into force including, without limitation, any of the preceding that relate to competition law, anti-corruption or bribery and/or export controls and sanctions.

Clause 7. No Agency

7.1 The APPLICATOR is not the agent of AkzoNobel. The APPLICATOR shall not describe itself or hold itself out as being the agent of AkzoNobel or make any guarantee or representation or do any other acts in the name of or on behalf of AkzoNobel or otherwise incur any liability on AkzoNobel’s behalf.

Clause 8. Force Majeure

8.1 Neither party shall be liable for any delay or non-performance under the Agreement caused by any event beyond its reasonable control (a “Force Majeure Event”) provided that the party affected gives prompt notice in writing to the other party of such Force Majeure Event and uses all reasonable endeavours to continue to perform its obligations under the Agreement. Either party may terminate the Agreement if the Force Majeure Event continues and has continued for more than 6 (six) months.

Clause 9. No Waiver

9.1 No waiver by either party of any breach of the Agreement by the other shall be considered a waiver by that party of any subsequent breach of the same or any other provision.

5.4. Interpon D2525 Guarantee – UK. Local For Exterior Architectural Application on Aluminium Substrates

Limited Guarantee for Interpon D Approved Applicator hereafter referred to as the APPLICATOR

Clause 1. During the Guarantee Period:

1.1 Checking/Cracking
No checking or cracking of the INTERPON D2525 on the exterior of the building will be observed on visual observation at a distance of 5 metres.

1.2 Colour Retention
Any colour change of the INTERPON D2525 on the building will be uniform across areas and surfaces receiving the same exposure.

Clause 2. In addition, at the time of delivery and when tested on panels, we Guarantee:

2.1 Gloss Retention
A decrease in gloss of less than 50% of the original gloss of INTERPON D2525 in compliance with the requirements of Qualicoat 13th Edition Class 2 powders after 3 years exposure in Florida facing 5 degrees South.

2.2 Adhesion
Adhesion of INTERPON D2525 when initially applied to test panels and measured by reference to EN ISO 2409: and Qualicoat 13th Edition Clause 2.4 will have classification 0.

2.3 Chalking Resistance
No chalking of the INTERPON D2525 after 3 years Florida will be observed in excess of that represented by No. 8 rating based on ASTM D4214.

Clause 3. Terms and Conditions of the Limited Guarantee

3.1 The “Guarantee Period” for the limited Guarantees in Clause 1 shall mean a period of 40 years for the coating exposed to non-aggressive exterior conditions commencing on the date the INTERPON D2525 powder coating covered by this Limited Guarantee is used by the APPLICATOR or alternatively, six months from date of delivery of the specified INTERPON D2525 powder coating to the APPLICATOR, whichever is sooner.

3.2 The limited performance Guarantees in Clause 1 are strictly conditional upon i) Product being applied to the aluminium or aluminium alloys as specified in the Interpon D Approved Applicator Manual, or communications to APPLICATOR by AkzoNobel from time to time, in accordance with instructions contained on the relevant product data sheet (a copy of which is attached) and the relevant DIN, ISO, AAMA, Qualicoat or AkzoNobel Standard (as the case may be), and ii) retention by the APPLICATOR for the duration of this Limited Guarantee of (A) a minimum of two (2) test panels coated from each batch of product received by the APPLICATOR and (B) the records required by Section 3.5 below. It is understood that gloss, chalk and colour change may not be uniform if the surfaces are not equally exposed to the sun and the elements.

3.3 In the event of a valid claim AkzoNobel’s exclusive liability to the APPLICATOR, and the sole remedy of the APPLICATOR, under this Limited Guarantee, shall be to provide replacement coating material (which replacement material may be a coating, liquid, powder or otherwise, other than INTERPON D2525) and pay the proper costs of such reasonable labour and travel expenses as AkzoNobel deems necessary to repair the failure in-situ, provided that AkzoNobel shall not be liable:

i) for the first £2000 of such repair costs of each and every individual claim from any of the APPLICATOR's customers;

ii) for any claim whether arising in contract, tort (including negligence) or otherwise for any consequential, economic, or other direct or indirect damage, loss or expense including loss of profits, income, contracts, business, production or goodwill or for any claims made against the APPLICATOR by third parties;

iii) unless written notice is given to AkzoNobel by the APPLICATOR within thirty (30) days after the date of detection of the matter giving rise to the claim and, in any event, not later than 40 years for a claim under the limited Guarantees in Clause 1, one (1) year for a claim under the limited Guarantee in Clause 2.1 or thirty (30) days for a claim under the limited Guarantee in Clause 2.2, commencing on the sooner of the date that the specified INTERPON D2525 powder coating is used by the APPLICATOR or six (6) months from the date of delivery to the APPLICATOR;

iv) unless a valid claim can be established under this Limited Guarantee such that the APPLICATOR can prove to the satisfaction of AkzoNobel that 5% or more of the total coated area to which the specified INTERPON D2525 powder coating has been applied failed to meet the performance criteria referred to in Clauses 1 and 2, as a result of an error or defect in the formulation or manufacture of the specified INTERPON D2525 powder coating.

v) for any claim made, or arising out of, any damage or deterioration occurring during any period when the APPLICATOR did not meet the requirements for Interpon D Approved APPLICATOR status set out in the Interpon D Approved APPLICATOR Manual supplied to the APPLICATOR, of which the APPLICATOR hereby acknowledges receipt, or as communicated to the APPLICATOR from time to time.

vi) unless the APPLICATOR shall prove to the reasonable satisfaction of AkzoNobel that the specified INTERPON D2525 powder coating, as applied, has failed to meet the performance criteria in Clauses 1 and 2;

vii) if INTERPON D2525 powder coating is applied to substrate which has been pre-treated with a pre-treatment not approved by AkzoNobel.

vii) if any of the circumstances set out in Clause 3.4 below applies.

Notwithstanding any other terms of this Limited Guarantee, any liability of AkzoNobel is conditional upon strict adherence to the pre-treatment and application procedures set out in the requirements of the Interpon D Approved APPLICATOR Manual; or as communicated to APPLICATOR from time to time. AkzoNobel specifically excludes any liability for failure of the coating arising out of the APPLICATOR's failure to comply with any of these obligations or requirements including, but not limited to, any failure in the adhesion of the coating such as, but not limited to any blistering, de-lamination, or flaking of the coating.

AkzoNobel's total liability under this Limited Guarantee to the APPLICATOR in respect of any one claim or the aggregate of any series of claims relating to INTERPON D2525 shall not in any event exceed in the aggregate three (3) times the value of the original powder supplied for the relevant project.
3.4 AkzoNobel shall not incur any liability under this Limited Guarantee whatsoever in the event that any one or more of the following circumstances occur:

i) the pre-treatment, application, curing, testing and quality management procedures are not carried out strictly in accordance with the requirements of the Interpon D Approved Applicator Manual or

Product “Approved Applicator” status as communicated by AkzoNobel to the APPLICATOR in writing from time to time;

ii) damage to or deterioration of the coating system arising from causes beyond the control of AkzoNobel such as but not limited to mechanical damage, fire damage, malicious damage, pollution and abnormal weather conditions;

iii) where surfaces have been re-coated or touched up, or where more than one coat of INTERPON D2525 has been applied.

iv) where failure is associated with exposure of the coatings to temperatures in excess of 60˚C or to acid or other hazardous sources which are known, are believed to be or are damaging to powder coatings;

v) where failure is associated with exposure of the coating to the direct influence of zones of salt water unless prior to the application of the coatings AkzoNobel has consented in writing to the APPLICATOR to Guarantee the coating as applied to the property in a specific location;

vi) where INTERPON D2525 has been stored for periods of time not in accordance with the product data sheet recommendations;
vii) where the coated surfaces have not been maintained by the APPLICATOR in accordance with AkzoNobel’s recommended maintenance procedures;

viii) where failure is associated with the use of adhesive tapes or with the use of sealants or mastics;

ix) where failure is associated with jig marks or other fixing points;

x) where failure is associated with fabrication activity carried out after the application of the INTERPON D2525 including but not limited to bending, elongation, cutting, sawing, milling or drilling;
xi) damage or deterioration caused by any default or misuse of INTERPON D2525 by the APPLICATOR or any third party;

xii) any claim arising out of the use of INTERPON D2525 in conjunction with equipment or materials not set out in AkzoNobel’s published product literature or reasonably contemplated by AkzoNobel; and/or

xiii) where failure is associated with the development of any other condition between the INTERPON D2525 powder coating and the substrate, including the failure or deficiency in the pre-treatment.

The APPLICATOR is not an AkzoNobel Approved APPLICATOR on the date the APPLICATOR uses the Interpon D2525

3.5 The APPLICATOR shall maintain and in the event of a claim, shall make available to AkzoNobel or its nominees for inspection and/or copying, the following records:
vi) pre-treatment plant records
vii) oven temperature records of curing ovens during stoving;
viii) application records and quality control records for each production job;
ix) maintenance records including details of washing and cleaning procedures;
x) any other data relevant the service history of the coating system.
In addition, the APPLICATOR shall arrange for AkzoNobel, should AkzoNobel so request, to inspect the property to which the INTERPON D2525 has been applied. Repairs under this limited Guarantee may only be carried out by AkzoNobel or, after consultation with AkzoNobel, by an APPLICATOR approved by it in writing.

3.6 If, whether pursuant to this limited Guarantee, approval of the APPLICATOR as an approved APPLICATOR or otherwise, AkzoNobel carries out any testing in connection with the APPLICATORS's procedures or operation or makes any recommendations, suggestions or advice in respect thereof or provides the APPLICATOR, its employees, agents or contractors with technical advice relating to the use or application of INTERPON D2525 (including without limitation the matters set out in the Product Data Sheet) or plant and equipment used in connection therewith or otherwise (any such test, recommendation, suggestion, advice, technical advice, plant or equipment being referred in this Clause 3.6 as "Services"), AkzoNobel shall not be liable in respect of any act, omission, deficiency, neglect or otherwise in the provision of any Services or any matter associated therewith.

3.7 The APPLICATOR agrees that at all times hereafter to hold harmless and indemnify AkzoNobel against all third party claims for loss, damage, or expenses brought against AkzoNobel of whatsoever nature and howsoever arising caused by or related to INTERPON D2525, the coating system, its application, repair or replacement under this limited Guarantee, or by, or as a result of the provision of any Services, as that expression is defined in Clause 3.6 above.

3.8 This limited Guarantee sets out AkzoNobel's entire liability for any fault or claim arising out of or in connection with the quality or condition of all INTERPON D2525 supplied to the applicator. All guarantees, representations, conditions and terms, whether express or implied, written or oral as to any such matters, including any implied guarantees of merchantablility and fitness for a particular purpose are hereby expressly excluded to the fullest extent permitted by law.

3.9 This limited Guarantee will only apply where the property to which INTERPON D2525 is applied is installed on premises in United Kingdom and Eire.

3.10 Any alteration to or modifications of this limited Guarantee must be in writing and signed by authorised representatives of the APPLICATOR and AkzoNobel.

3.11 This Limited Guarantee is granted to the APPLICATOR alone as the purchaser of INTERPON D2525 and is non-transferable and non-assignable in whole or in part. The APPLICATOR shall not itself nor permit its agents, representatives or contractors to represent or to imply that this limited Guarantee extends to or is available to anyone other than the APPLICATOR. This limited Guarantee shall not be enforceable by any third party. All communications relating to this limited Guarantee shall be in writing and duly deemed served three days after it has been sent First Class registered mail, or immediately upon receipt if delivered by hand or properly sent by telex or facsimile transmission.

3.12 AkzoNobel's Terms and Conditions of Sale from time to time in force govern all sales of INTERPON D2525 except that in the event of any conflict between the Terms and Conditions of Sale and this limited Guarantee, the terms of this limited Guarantee shall prevail.
3.13 The words "checking", "cracking" and "chalking" have the meaning given to them in EN ISO 4618:

3.14 The word "exterior" in this Guarantee has the meaning as set forth in ISO 12944-2: (C3 classification)

Clause 4. Intellectual Property Rights

4.1 AkzoNobel authorises the APPLICATOR to use all trademarks used by AkzoNobel and/or its associated companies on or in relation to the Products ("Trade Marks") for the sole purpose of exercising its rights and performing its obligations under the contract entered into between AkzoNobel and the APPLICATOR. For the avoidance of doubt, the APPLICATOR acknowledges that all Trade Marks belong to AkzoNobel.

4.2 The APPLICATOR is not authorised to use, register or have registered or attempt to register other trademarks, logos or domain names of AkzoNobel and/or its associated companies or AkzoNobel's authorised APPLICATOR logo without first having obtained a license from AkzoNobel.

4.3 The Products shall be sold under the Trade Marks and all Products, containers and advertisements for the Products shall be accompanied by an acknowledgement that the relevant Trade Mark is a trade mark belonging to AkzoNobel. The APPLICATOR undertakes that it shall not use AkzoNobel's name, the Trade Marks or any other trademarks or trade names belonging to AkzoNobel or its associated companies on any goods other than the Products which shall only be sold under AkzoNobel's Trade Marks and packed and presented as specified by AkzoNobel complete with AkzoNobel's original labels or markings which shall remain clearly visible without the addition of any other label, mark or name except the APPLICATOR's own name and address. The APPLICATOR will not at any time do or cause to be done any act which directly or indirectly impairs or endangers AkzoNobel's right, title or interest in any Intellectual Property which AkzoNobel owns or is licensed to use. (For the purposes of this clause, "Intellectual Property" means any patent, copyright, trade mark (including the Trade Marks), trade name, design (whether registered or unregistered), database rights or other industrial or intellectual property right in the Products, together with any applications for registration of such rights existing in any jurisdiction.)

4.4 All representations of the Trade Marks which the APPLICATOR intends to use shall first be submitted to AkzoNobel for approval.

4.5 The APPLICATOR shall not modify the Products or their packaging, alter, remove or tamper with any Trade Marks or use any of the Trade Marks in a way that might prejudice their distinctiveness or validity or AkzoNobel's goodwill in such marks.

4.6 All Intellectual Property and any literature, software application or database supplied by AkzoNobel under the Agreement shall be and remain AkzoNobel's absolute property. The APPLICATOR shall not register or cause to be registered in any part of the world any patent, trademark, trade name, copyright or design similar to, or any imitation of, such Intellectual Property.

4.7 The APPLICATOR agrees that any information contained in or subsequently entered into a software application or database provided by AkzoNobel shall belong to AkzoNobel and may only be used by AkzoNobel or as permitted under the Agreement and may be retrieved by AkzoNobel at any time.

4.8 The APPLICATOR shall immediately notify AkzoNobel of any infringement or suspected infringement of AkzoNobel's Intellectual Property rights and of any actions, claims or demands in relation to any Intellectual Property and the APPLICATOR shall render its assistance to AkzoNobel (at AkzoNobel's cost).

4.9 The APPLICATOR shall, without prejudice to any other rights of AkzoNobel, indemnify AkzoNobel for any loss suffered by AkzoNobel by reason of any use by the APPLICATOR of AkzoNobel's Intellectual Property otherwise than in accordance with the Agreement.

4.10 In order to endorse the status granted as an 'Approved Applicator', AkzoNobel also grants the APPLICATOR ("User") a license to use the trademark 'AkzoNobel Approved Applicator' that has been designed for this purpose only ("License"). The License is subject to the terms and conditions set out in Appendix 4. The Approved Applicator trademark is also included in Appendix 4. The License to use this trademark is applicable only so long as the APPLICATOR/User remains an Approved Applicator under the terms of its Approved Applicator contract.

Clause 5. Confidential Information

5.1 “Confidential Information” means any information, formulations, techniques, samples, specifications, equipment, technology, manufacturing processes, customer lists, information obtained from any database or software application belonging to AkzoNobel and/or its associated companies and any other information communicated by AkzoNobel to the APPLICATOR before or after the Effective Date, whether disclosed in documentary or other tangible form (including, without limitation, digital, electronic and magnetic media) under or in connection with the Agreement (whether orally or in writing and whether or not such information is expressly stated to be confidential or is marked as such).

5.2 The APPLICATOR shall at all times during the term of the Agreement and after its termination:

(a) keep all Confidential Information confidential and not disclose it to any other person, subject to clause 5.3; and

(b) not use any Confidential Information for any purpose other than the performance of its obligations under the Agreement.

5.3 Any Confidential Information may be disclosed by the APPLICATOR to:

(a) any customers or prospective customers;

(b) any governmental or other authority or regulatory body; or

(c) any employees of the APPLICATOR

only to the extent necessary for the purposes of the Agreement or as is required by law and subject in each case to the APPLICATOR using its best endeavours to ensure that the person in question keeps the same confidential and does not use the same except for the purposes for which the disclosure is made.

5.4 Any Confidential Information may be used by the APPLICATOR for any purpose, or disclosed by the APPLICATOR to any other person if:

(a) it is or becomes public knowledge through no fault of the APPLICATOR (provided that in doing so, the APPLICATOR shall not disclose any Confidential Information which is not public knowledge); or

(b) the APPLICATOR can show, to AkzoNobel’s reasonable satisfaction, that it knew it prior to its being disclosed by AkzoNobel.

Clause 6. Regulatory Compliance

6.1 The APPLICATOR shall comply with all relevant legislation, rules, regulations, codes of practice, guidance and statutory requirements that from time to time come into force including, without limitation, any of the preceding that relate to competition law, anti-corruption or bribery and/or export controls and sanctions.

Clause 7. No Agency

7.1 The APPLICATOR is not the agent of AkzoNobel. The APPLICATOR shall not describe itself or hold itself out as being the agent of AkzoNobel or make any guarantee or representation or do any other acts in the name of or on behalf of AkzoNobel or otherwise incur any liability on AkzoNobel’s behalf.

Clause 8. Force Majeure

8.1 Neither party shall be liable for any delay or non-performance under the Agreement caused by any event beyond its reasonable control (a “Force Majeure Event”) provided that the party affected gives prompt notice in writing to the other party of such Force Majeure Event and uses all reasonable endeavours to continue to perform its obligations under the Agreement. Either party may terminate the Agreement if the Force Majeure Event continues and has continued for more than 6 (six) months.

Clause 9. No Waiver

9.1 No waiver by either party of any breach of the Agreement by the other shall be considered a waiver by that party of any subsequent breach of the same or any other provision.

5.5 Guarantee Matrix – Aluminium Substrates – European/Global Matrix

Environment		Interpon D System			
		Interpon D1036		Interpon D2525	
		Guarantee Period	Requirements[1]	Guarantee Period	Requirements[1]
Normal C3 Inland		**15 years** all finishes and gloss levels	Clean every 12 months	**25 years** all finishes and gloss levels	Clean every 18 months
Marine – C4 Coastal	50 - 5000m from coastline	**15 years** all finishes and gloss levels	Minimum 60 microns	**25 years** all finishes and gloss levels	Minimum 60 microns
			Clean every 3 months		Clean every 6 months
Marine – C5	Less than 50m from coastline	Not available		Not available	
Industrial – C4	50 - 5000m from source of pollution	**15 years** all finishes and gloss levels	Minimum 60 microns	**25 years** all finishes and gloss levels	Minimum 60 microns
			Clean every 3 months		Clean every 6 months
Industrial – C5	Less than 50m from source of pollution	Not available		Not available	
Swimming Pools	Greater than 2m from edge of pool	**25 years** all finishes and gloss levels	Minimum 60 microns	**25 years** all finishes and gloss levels	Minimum 60 microns
			Clean every 3 months		Clean every 3 months
	Less than 2m from edge of pool	Not available		Not available	

Notes: Environmental classification as defined by ISO 9223

5.6. Interpon D1036 Guarantee – European/Global. For Exterior Architectural Application on Aluminium Substrates

Limited Guarantee for the Applicator

CLAUSE 1. Project Guarantee of 15 YEARS

Compliance with data sheet

The "Guarantee Period" shall mean a period of fifteen (15) years commencing on the date that the Customer uses the Interpon D1036 or 6 months maximum after the powder has been delivered by AkzoNobel.

Under the terms and conditions as set out under Clause 3, AkzoNobel guarantees for the Guarantee Period thereafter that at the time of delivery the above-mentioned Product meets the specifications as set out on the Data Sheet of the Product (“Product Guarantee Period”), more specifically:

AkzoNobel guarantees for the Guarantee Period that at the time of delivery Interpon D1036 as supplied to the Applicator meets in full the requirements of [Qualicoat Class 1] (including the requirements for colour change, gloss retention and chalking resistance when tested in Florida in accordance with [Qualicoat Class 1]

1.1 Checking/Cracking

During the Guarantee Period no checking or cracking of the Product on the exterior of the building will be observed on visual observation at a distance of 3 metres.

1.2 Adhesion

AkzoNobel guarantees for the Guarantee Period that adhesion of the Product when initially applied to test panels and measured by reference to [Qualicoat Class 1] will show no removal of the film.

1.3 Instructions

The Product Guarantee as given in this Clause is strictly conditional upon Interpon D1036 being applied to the property in accordance with the instructions contained on the relevant product data sheet, a copy of which is attached. All relevant DIN, ISO, British Standard or Akzo Nobel standards must be strictly adhered too.

CLAUSE 2. DECORATIVE GUARANTEE

2.1 Term

Under the terms and conditions as set out under Clause 3, AkzoNobel gives a Decorative Guarantee for the period of ten (10) years for the Project as indicated on the Guarantee Certificate, as attached hereto, under non-aggressive exterior conditions (C1, C2, C3 as defined by ISO 12944-2:)*: *Special conditions apply for C4 and C5 environments.

2.2 Commencement

The “Decorative Guarantee Period” relating to coating exposed to non-aggressive exterior conditions (C1, C2, C3 as defined by ISO 12944-2:) commencing on the date the INTERPON D1036 powder coating covered by this Limited Guarantee is used by the APPLICATOR or alternatively, six months

from date of delivery of the specified INTERPON D1036 powder coating to the APPLICATOR, whichever is sooner.

2.3 Chalking Resistance

During the “Decorative Guarantee” no chalking of the Product on the exterior of the building will be observed in excess of that represented by No. 8 rating based on ASTM D4214.

2.4 Gloss Retention

During the “Decorative Guarantee”, any decrease of gloss of the Product on the building will be even over each surface with the same exposure.

2.5 Colour Retention

During the “Decorative Guarantee” no colour change of the Product on the building greater than 5 (five) CIE Lab ΔE units calculated in accordance with ASTM 2244 Section 6.3. Colour change shall be measured on the relevant paint surface which has been cleaned of oil, grease, chalk, oxidized film or other contaminants, corresponding values shall be measured on the original batch panels retained by the Applicator (panels stored in the dark at temperatures below 30°C).

CLAUSE 3. TERMS AND CONDITIONS OF THE LIMITED GUARANTEE.

3.1 The Limited Guarantee in both Clause 1 as Clause 2 is strictly conditional upon i) Product being applied to the aluminium or aluminium alloys as specified in the Interpon D UK Approved Applicator Manual or communications to APPLICATOR by AkzoNobel from time to time, in accordance with instructions contained on the relevant product data sheet (a copy of which is attached) and the relevant DIN, ISO, AAMA, Qualicoat or AkzoNobel Standard (as the case may be), and ii) retention by the APPLICATOR for the duration of this Limited Guarantee of (A) a minimum of two (2) test panels coated from each batch of product received by the APPLICATOR and (B) the records required by Section 3.4 below. It is understood that gloss, chalk and colour change may not be uniform if the surfaces are not equally exposed to the sun and the elements.

3.2 In the event of a valid claim AkzoNobel’s exclusive liability to the APPLICATOR, and the sole remedy of the APPLICATOR, under this Limited Guarantee, shall be to provide replacement coating material (which replacement material may be a coating, liquid, powder or otherwise, other than INTERPON D1036 SERIES) and pay the proper costs of such reasonable labour and travel expenses as AkzoNobel deems necessary to repair the failure in situ, provided that AkzoNobel shall not be liable:

i) for the first £2,000 of such repair costs of each and every individual claim from any of the APPLICATOR’s customers;

ii) for any claim whether arising in contract, tort (including negligence) or otherwise for any consequential, economic, or other direct or indirect damage, loss or expense including loss of profits, income, contracts, business, production or goodwill or for any claims made against the APPLICATOR by third parties;

iii) unless written notice is given to AkzoNobel by the APPLICATOR within thirty (30) days after the date of detection of the matter giving rise to the claim and, in any event, not later than 15 years for a claim under the limited Product Guarantee in Clause 1, three (3) years for a claim under the limited Product Guarantee in Clause 2.4 (Gloss retention) or thirty (30) days for a claim under the limited Product Guarantee in Clause 1.3 (Adhesion), commencing on the sooner of the date that the specified

INTERPON D1036 SERIES powder coating is used by the APPLICATOR or six (6) months from the date of delivery to the APPLICATOR;

iv) unless a valid claim can be established under this Limited Guarantee such that the APPLICATOR can prove to the satisfaction of AkzoNobel that 5% or more of the total coated area to which the specified INTERPON D1036 SERIES powder coating has been applied failed to meet the performance criteria referred to in Clauses 1 and 2, as a result of an error or defect in the formulation or manufacture of the specified INTERPON D1036 SERIES powder coating.

v) for any claim made, or arising out of, any damage or deterioration occurring during any period when the APPLICATOR did not meet the requirements for Interpon D Approved APPLICATOR status set out in the Interpon D UK Approved Applicator Manual supplied to the APPLICATOR, of which the APPLICATOR hereby acknowledges receipt, or as communicated to the APPLICATOR from time to time.

vi) unless the APPLICATOR shall prove to the reasonable satisfaction of AkzoNobel that the specified INTERPON D1036 SERIES powder coating, as applied, has failed to meet the performance criteria in Clauses 1 and 2;

vii) if INTERPON D1036 SERIES powder coating is applied to substrate which has been pretreated with a pre-treatment not approved by AkzoNobel.
vii) if any of the circumstances set out in Clause 3.4 below applies.

Notwithstanding any other terms of this Limited Guarantee, any liability of AkzoNobel is conditional upon strict adherence to the pre-treatment and application procedures set out in the requirements of the Interpon D UK Approved Applicator Manual; or as communicated to APPLICATOR from time to time. AkzoNobel specifically excludes any liability for failure of the coating arising out of the APPLICATOR's failure to comply with any of these obligations or requirements including, but not limited to, any failure in the adhesion of the coating such as, but not limited to any blistering, delamination, or flaking of the coating.

AkzoNobel's total liability under this Limited Guarantee to the APPLICATOR in respect of any one claim or the aggregate of any series of claims relating to INTERPON D1036 SERIES shall not in any event exceed in the aggregate three (3) times the value of the original powder supplied for the relevant project, excluding VAT, import and export expenses, transport costs, non-standard packaging costs and other additional costs and expenses.

3.3 AkzoNobel shall not incur any liability under this Limited Guarantee whatsoever in the event that any one or more of the following circumstances occur:

i) the pre-treatment, application, curing, testing and quality management procedures are not carried out strictly in accordance with the requirements of the Interpon D UK Approved Applicator Manual or Product "Approved Applicator" status as communicated by AkzoNobel to the APPLICATOR in writing from time to time;

ii) damage to or deterioration of the coating system arising from causes beyond the control of AkzoNobel such as but not limited to mechanical damage, fire damage, malicious damage, pollution and abnormal weather conditions;

iii) where surfaces have been re-coated or touched up, or where more than one coat of INTERPON D1036 SERIES has been applied or has been stripped and then re-coated with INTERPON D1036 SERIES.

iv) where failure is associated with exposure of the coatings to temperatures in excess of 60˚C or to acid or other hazardous sources which are known, are believed to be or are damaging to powder coatings;

v) where failure is associated with exposure of the coating to the direct influence of zones of salt water unless prior to the application of the coatings AkzoNobel has consented in writing to the APPLICATOR to Guarantee the coating as applied to the property in a specific location;

vi) where INTERPON D1036 SERIES has been stored for periods of time not in accordance with the product data sheet recommendations;

vii) where the coated surfaces have not been maintained by the APPLICATOR in accordance with AkzoNobel's recommended maintenance procedures;

viii) where failure is associated with the use of adhesive tapes or with the use of sealants or mastics;

ix) where failure is associated with jig marks or other fixing points;
x) where failure is associated with fabrication activity carried out after the application of the INTERPON D1036 SERIES including but not limited to bending, elongation, cutting, sawing, milling or drilling;
xi) damage or deterioration caused by any default or misuse of INTERPON D1036 SERIES by the APPLICATOR or any third party;

xii) any claim arising out of the use of INTERPON D1036 SERIES in conjunction with equipment or materials not set out in AkzoNobel's published product literature or reasonably contemplated by AkzoNobel;

xiii) where failure is associated with the development of any other condition between the INTERPON D1036 SERIES powder coating and the substrate, including the failure or deficiency in the pre-treatment; and/or

xiiii) the APPLICATOR is not an AkzoNobel Approved APPLICATOR on the date the APPLICATOR uses the Interpon D1036 SERIES.

3.4 The APPLICATOR shall maintain and in the event of a claim, shall make available to AkzoNobel or its nominees for inspection and/or copying, the following records:

xiv) pre-treatment plant records
xv) oven temperature records of curing ovens during stoving;
xvi) application records and quality control records for each production job;
xvii) maintenance records including details of washing and cleaning procedures;
xviii) any other data relevant the service history of the coating system.

In addition, the APPLICATOR shall arrange for AkzoNobel, should AkzoNobel so request, to inspect the property to which the INTERPON D1036 SERIES has been applied. Repairs under this Limited Guarantee may only be carried out by AkzoNobel or, after consultation with AkzoNobel, by an APPLICATOR approved by it in writing.

3.5 If, whether pursuant to this Limited Guarantee, approval of the APPLICATOR as an approved APPLICATOR or otherwise, AkzoNobel carries out any testing in connection with the APPLICATORS's procedures or operation or makes any recommendations, suggestions or advice in respect thereof or provides the APPLICATOR, its employees, agents or contractors with technical advice relating to the use or application of INTERPON D1036 SERIES (including without limitation the matters set out in the Product Data Sheet) or plant and equipment used in connection therewith or

otherwise (any such test, recommendation, suggestion, advice, technical advice, plant or equipment being referred in this Clause 3.5 as “Services”), AkzoNobel shall not be liable in respect of any act, omission, deficiency, neglect or otherwise in the provision of any Services or any matter associated therewith.

3.6 The APPLICATOR agrees that at all times hereafter to hold harmless and indemnify AkzoNobel against all third party claims for loss, damage, or expenses brought against AkzoNobel of whatsoever nature and howsoever arising caused by or related to INTERPON D1036 SERIES, the coating system, its application, repair or replacement under this Limited Guarantee, or by, or as a result of the provision of any Services, as that expression is defined in Clause 3.5 above.

3.7 This Limited Guarantee sets out AkzoNobel’s entire liability for any fault or claim arising out of or in connection with the quality or condition of all INTERPON D1036 SERIES supplied to the APPLICATOR. All Warranties, representations, conditions and terms, whether express or implied, written or oral as to any such matters, including any implied Warranties of merchantability and fitness for a particular purpose are hereby expressly excluded to the fullest extent permitted by law.
3.8 This Limited Guarantee will only apply where the property to which INTERPON D1036 SERIES is applied is installed on premises in the United Kingdom.

3.9 Any alteration to or modifications, other than the one mentioned in Section 3.12, of this Limited Guarantee must be in writing and signed by authorised representatives of the APPLICATOR and AkzoNobel.

3.10 This Limited Guarantee is granted to the APPLICATOR alone as the purchaser of INTERPON D1036 SERIES and is non-transferable and non-assignable in whole or in part. The APPLICATOR shall not itself nor permit its agents, representatives or contractors to represent or to imply that this Limited Guarantee extends to or is available to anyone other than the APPLICATOR. This Limited Guarantee shall not be enforceable by any third party. All communications relating to this Limited Guarantee shall be in writing and duly deemed served three days after it has been sent First Class registered mail, or immediately upon receipt if delivered by hand or properly sent by telex or facsimile transmission.

3.11 AkzoNobel’s Terms and Conditions of Sale in force govern all sales of INTERPON D1036 SERIES except that in the event of any conflict between the Terms and Conditions of Sale and this Limited Guarantee, the terms of this Limited Guarantee shall prevail.

3.12 Any future alterations and/or modifications to this Limited Guarantee that are to be considered an enhancement in light of the current version, shall be provided in writing to the Applicator and will become an integral part of this Limited Guarantee for the remaining period of its duration, unless Applicator protests against this alteration/modification in writing within 10 working days after notification.

3.13 All attachments, documents and/or annexes hereto shall be read, construed and considered to be an essential part of the limited Guarantee and shall form an integral part hereof.

3.14 The words “checking”, “cracking” and “chalking” have the meaning given to them in EN ISO 4618:.

3.15 The word “interior” in this Guarantee has the meaning as set forth in ISO 12944-2: (C1 classification).

3.16 This Limited Guarantee represents the entire agreement between parties in relation to its subject matter and supersedes any previous agreement whether written or oral between the parties in relation to its subject matter. This Limited Guarantee shall be constructed in accordance with the laws of

England[1]. The parties will attempt in good faith to negotiate a settlement to any claim or dispute between them arising out of or in connection with the Limited Guarantee. If the matter is not resolved by negotiation, the parties will refer the dispute to mediation in accordance with CPR (CPR Institute for Dispute Resolution) procedures. If the parties fail to agree to terms of settlement within thirty (30) days of the commencement of the CPR procedure, the dispute shall be subject to the exclusive jurisdiction of the English courts[2].

5.7. Interpon D2525 Guarantee – European/Global. For Exterior Architectural Application on Aluminium Substrates

Limited Guarantee for the Applicator

CLAUSE 1. PROJECT GUARANTEE OF 25 YEARS

Compliance with data sheet

The "Guarantee Period" shall mean a period of twenty-five (25) years commencing on the date that the Customer uses the Interpon D2525 or 6 months maximum after the powder has been delivered by AkzoNobel.

Under the terms and conditions as set out under Clause 3, AkzoNobel guarantees for the Guarantee Period thereafter that at the time of delivery the above-mentioned Product meets the specifications as set out on the Data Sheet of the Product (“Product Guarantee Period”), more specifically:

AkzoNobel guarantees for the Guarantee Period that at the time of delivery Interpon D2525 as supplied to the Applicator meets in full the requirements of [Qualicoat Class 2] (including the requirements for colour change, gloss retention and chalking resistance when tested in Florida in accordance with [Qualicoat Class 2]

1.4 Checking/Cracking

During the Guarantee Period no checking or cracking of the Product on the exterior of the building will be observed on visual observation at a distance of 3 metres.

1.5 Adhesion

AkzoNobel guarantees for the Guarantee Period that adhesion of the Product when initially applied to test panels and measured by reference to [Qualicoat Class 2] will show no removal of the film.

1.6 Instructions

The Product Guarantee as given in this Clause is strictly conditional upon Interpon D2525 being applied to the property in accordance with the instructions contained on the relevant product data sheet, a copy of which is attached. All relevant DIN, ISO, British Standard or Akzo Nobel standards must be strictly adhered too.

CLAUSE 2. DECORATIVE GUARANTEE

2.6 Term

Under the terms and conditions as set out under Clause 3, AkzoNobel gives a Decorative Guarantee for the period of fifteen (15) years for the Project as indicated on the Guarantee Certificate, as attached hereto, under non-aggressive exterior conditions (C1, C2, C3 as defined by ISO 12944-2:)*:
*Special conditions apply for C4 and C5 environments.

2.7 Commencement

The “Decorative Guarantee Period” relating to coating exposed to non-aggressive exterior conditions (C1, C2, C3 as defined by ISO 12944-2:) commencing on the date the INTERPON D2525 powder coating covered by this Limited Guarantee is used by the APPLICATOR or alternatively, six months

from date of delivery of the specified INTERPON D2525 powder coating to the APPLICATOR, whichever is sooner.

2.8 Chalking Resistance

During the “Decorative Guarantee” no chalking of the Product on the exterior of the building will be observed in excess of that represented by No. 8 rating based on ASTM D4214.

2.9 Gloss Retention

During the “Decorative Guarantee”, any decrease of gloss of the Product on the building will be even over each surface with the same exposure.

2.10 Colour Retention

During the “Decorative Guarantee” no colour change of the Product on the building greater than 5 (five) CIE Lab ΔE units calculated in accordance with ASTM 2244 Section 6.3. Colour change shall be measured on the relevant paint surface which has been cleaned of oil, grease, chalk, oxidized film or other contaminants, corresponding values shall be measured on the original batch panels retained by the Applicator (panels stored in the dark at temperatures below 30°C).

CLAUSE 3. TERMS AND CONDITIONS OF THE LIMITED GUARANTEE.

3.1 The Limited Guarantee in both Clause 1 as Clause 2 is strictly conditional upon i) Product being applied to the aluminium or aluminium alloys as specified in the Interpon D UK Approved Applicator Manual or communications to APPLICATOR by AkzoNobel from time to time, in accordance with instructions contained on the relevant product data sheet (a copy of which is attached) and the relevant DIN, ISO, AAMA, Qualicoat or AkzoNobel Standard (as the case may be), and ii) retention by the APPLICATOR for the duration of this Limited Guarantee of (A) a minimum of two (2) test panels coated from each batch of product received by the APPLICATOR and (B) the records required by Section 3.4 below. It is understood that gloss, chalk and colour change may not be uniform if the surfaces are not equally exposed to the sun and the elements.

3.2 In the event of a valid claim AkzoNobel’s exclusive liability to the APPLICATOR, and the sole remedy of the APPLICATOR, under this Limited Guarantee, shall be to provide replacement coating material (which replacement material may be a coating, liquid, powder or otherwise, other than INTERPON D2525 SERIES) and pay the proper costs of such reasonable labour and travel expenses as AkzoNobel deems necessary to repair the failure in situ, provided that AkzoNobel shall not be liable:

i) for the first £2,000 of such repair costs of each and every individual claim from any of the APPLICATOR’s customers;

ii)for any claim whether arising in contract, tort (including negligence) or otherwise for any consequential, economic, or other direct or indirect damage, loss or expense including loss of profits, income, contracts, business, production or goodwill or for any claims made against the APPLICATOR by third parties;

iii) unless written notice is given to AkzoNobel by the APPLICATOR within thirty (30) days after the date of detection of the matter giving rise to the claim and, in any event, not later than 25 years for a claim under the limited Product Guarantee in Clause 1, three (3) years for a claim under the limited Product Guarantee in Clause 2.4 (Gloss retention) or thirty (30) days for a claim under the limited Product Guarantee in Clause 1.3 (Adhesion), commencing on the sooner of the date that the specified

INTERPON D2525 SERIES powder coating is used by the APPLICATOR or six (6) months from the date of delivery to the APPLICATOR;

iv) unless a valid claim can be established under this Limited Guarantee such that the APPLICATOR can prove to the satisfaction of AkzoNobel that 5% or more of the total coated area to which the specified INTERPON D2525 SERIES powder coating has been applied failed to meet the performance criteria referred to in Clauses 1 and 2, as a result of an error or defect in the formulation or manufacture of the specified INTERPON D2525 SERIES powder coating.

v) for any claim made, or arising out of, any damage or deterioration occurring during any period when the APPLICATOR did not meet the requirements for Interpon D Approved APPLICATOR status set out in the Interpon D UK Approved Applicator Manual supplied to the APPLICATOR, of which the APPLICATOR hereby acknowledges receipt, or as communicated to the APPLICATOR from time to time.

vi) unless the APPLICATOR shall prove to the reasonable satisfaction of AkzoNobel that the specified INTERPON D2525 SERIES powder coating, as applied, has failed to meet the performance criteria in Clauses 1 and 2;

vii) if INTERPON D2525 SERIES powder coating is applied to substrate which has been pretreated with a pre-treatment not approved by AkzoNobel.
vii) if any of the circumstances set out in Clause 3.4 below applies.

Notwithstanding any other terms of this Limited Guarantee, any liability of AkzoNobel is conditional upon strict adherence to the pre-treatment and application procedures set out in the requirements of the Interpon D UK Approved Applicator Manual; or as communicated to APPLICATOR from time to time. AkzoNobel specifically excludes any liability for failure of the coating arising out of the APPLICATOR's failure to comply with any of these obligations or requirements including, but not limited to, any failure in the adhesion of the coating such as, but not limited to any blistering, delamination, or flaking of the coating.

AkzoNobel's total liability under this Limited Guarantee to the APPLICATOR in respect of any one claim or the aggregate of any series of claims relating to INTERPON D2525 SERIES shall not in any event exceed in the aggregate three (3) times the value of the original powder supplied for the relevant project, excluding VAT, import and export expenses, transport costs, non-standard packaging costs and other additional costs and expenses.

3.3 AkzoNobel shall not incur any liability under this Limited Guarantee whatsoever in the event that any one or more of the following circumstances occur:

i) the pre-treatment, application, curing, testing and quality management procedures are not carried out strictly in accordance with the requirements of the Interpon D UK Approved Applicator Manual or Product "Approved Applicator" status as communicated by AkzoNobel to the APPLICATOR in writing from time to time;

ii) damage to or deterioration of the coating system arising from causes beyond the control of AkzoNobel such as but not limited to mechanical damage, fire damage, malicious damage, pollution and abnormal weather conditions;

iii) where surfaces have been re-coated or touched up, or where more than one coat of INTERPON D2525 SERIES has been applied or has been stripped and then re-coated with INTERPON D2525 SERIES.

iv) where failure is associated with exposure of the coatings to temperatures in excess of 60˚C or to acid or other hazardous sources which are known, are believed to be or are damaging to powder coatings;

v) where failure is associated with exposure of the coating to the direct influence of zones of salt water unless prior to the application of the coatings AkzoNobel has consented in writing to the APPLICATOR to Guarantee the coating as applied to the property in a specific location;

vi) where INTERPON D2525 SERIES has been stored for periods of time not in accordance with the product data sheet recommendations;

vii) where the coated surfaces have not been maintained by the APPLICATOR in accordance with AkzoNobel's recommended maintenance procedures;

viii) where failure is associated with the use of adhesive tapes or with the use of sealants or mastics;

ix) where failure is associated with jig marks or other fixing points;
x) where failure is associated with fabrication activity carried out after the application of the INTERPON D2525 SERIES including but not limited to bending, elongation, cutting, sawing, milling or drilling;
xi) damage or deterioration caused by any default or misuse of INTERPON D2525 SERIES by the APPLICATOR or any third party;

xii) any claim arising out of the use of INTERPON D2525 SERIES in conjunction with equipment or materials not set out in AkzoNobel's published product literature or reasonably contemplated by AkzoNobel;

xiii) where failure is associated with the development of any other condition between the INTERPON D2525 SERIES powder coating and the substrate, including the failure or deficiency in the pre-treatment; and/or

xiiii) the APPLICATOR is not an AkzoNobel Approved APPLICATOR on the date the APPLICATOR uses the Interpon D2525 SERIES.

3.4 The APPLICATOR shall maintain and in the event of a claim, shall make available to AkzoNobel or its nominees for inspection and/or copying, the following records:

xiv) pre-treatment plant records
xv) oven temperature records of curing ovens during stoving;
xvi) application records and quality control records for each production job;
xvii) maintenance records including details of washing and cleaning procedures;
xviii) any other data relevant the service history of the coating system.

In addition, the APPLICATOR shall arrange for AkzoNobel, should AkzoNobel so request, to inspect the property to which the INTERPON D2525 SERIES has been applied. Repairs under this Limited Guarantee may only be carried out by AkzoNobel or, after consultation with AkzoNobel, by an APPLICATOR approved by it in writing.

3.5 If, whether pursuant to this Limited Guarantee, approval of the APPLICATOR as an approved APPLICATOR or otherwise, AkzoNobel carries out any testing in connection with the APPLICATORS's procedures or operation or makes any recommendations, suggestions or advice in respect thereof or provides the APPLICATOR, its employees, agents or contractors with technical advice relating to the use or application of INTERPON D2525 SERIES (including without limitation the matters set out in the Product Data Sheet) or plant and equipment used in connection therewith or

otherwise (any such test, recommendation, suggestion, advice, technical advice, plant or equipment being referred in this Clause 3.5 as “Services”), AkzoNobel shall not be liable in respect of any act, omission, deficiency, neglect or otherwise in the provision of any Services or any matter associated therewith.

3.6 The APPLICATOR agrees that at all times hereafter to hold harmless and indemnify AkzoNobel against all third party claims for loss, damage, or expenses brought against AkzoNobel of whatsoever nature and howsoever arising caused by or related to INTERPON D2525 SERIES, the coating system, its application, repair or replacement under this Limited Guarantee, or by, or as a result of the provision of any Services, as that expression is defined in Clause 3.5 above.

3.7 This Limited Guarantee sets out AkzoNobel’s entire liability for any fault or claim arising out of or in connection with the quality or condition of all INTERPON D2525 SERIES supplied to the APPLICATOR. All Warranties, representations, conditions and terms, whether express or implied, written or oral as to any such matters, including any implied Warranties of merchantability and fitness for a particular purpose are hereby expressly excluded to the fullest extent permitted by law.
3.8 This Limited Guarantee will only apply where the property to which INTERPON D2525 SERIES is applied is installed on premises in the United Kingdom.

3.9 Any alteration to or modifications, other than the one mentioned in Section 3.12, of this Limited Guarantee must be in writing and signed by authorised representatives of the APPLICATOR and AkzoNobel.

3.10 This Limited Guarantee is granted to the APPLICATOR alone as the purchaser of INTERPON D2525 SERIES and is non-transferable and non-assignable in whole or in part. The APPLICATOR shall not itself nor permit its agents, representatives or contractors to represent or to imply that this Limited Guarantee extends to or is available to anyone other than the APPLICATOR. This Limited Guarantee shall not be enforceable by any third party. All communications relating to this Limited Guarantee shall be in writing and duly deemed served three days after it has been sent First Class registered mail, or immediately upon receipt if delivered by hand or properly sent by telex or facsimile transmission.

3.11 AkzoNobel’s Terms and Conditions of Sale in force govern all sales of INTERPON D2525 SERIES except that in the event of any conflict between the Terms and Conditions of Sale and this Limited Guarantee, the terms of this Limited Guarantee shall prevail.

3.12 Any future alterations and/or modifications to this Limited Guarantee that are to be considered an enhancement in light of the current version, shall be provided in writing to the Applicator and will become an integral part of this Limited Guarantee for the remaining period of its duration, unless Applicator protests against this alteration/ modification in writing within 10 working days after notification.

3.13 All attachments, documents and/or annexes hereto shall be read, construed and considered to be an essential part of the limited Guarantee and shall form an integral part hereof.

3.14 The words “checking”, “cracking” and “chalking” have the meaning given to them in EN ISO 4618:.

3.15 The word “interior” in this Guarantee has the meaning as set forth in ISO 12944-2-2018 (C1 classification).

3.16 This Limited Guarantee represents the entire agreement between parties in relation to its subject matter and supersedes any previous agreement whether written or oral between the parties in relation to its subject matter. This Limited Guarantee shall be constructed in accordance with the laws of

England[3]. The parties will attempt in good faith to negotiate a settlement to any claim or dispute between them arising out of or in connection with the Limited Guarantee. If the matter is not resolved by negotiation, the parties will refer the dispute to mediation in accordance with CPR (CPR Institute for Dispute Resolution) procedures. If the parties fail to agree to terms of settlement within thirty (30) days of the commencement of the CPR procedure, the dispute shall be subject to the exclusive jurisdiction of the English courts[4].

6. Hazardous Environments

The guarantee is given for coated parts exposed under “normal” environmental conditions; these are locations where the local conditions do not adversely affect to properties of the powder-coated film. This is designated as a C3 environment under the classifications given in ISO 9223.

Hazardous environments are those areas where the conditions may adversely affect the properties of the powder-coater film; these areas are classified under the following descriptions:

1. Marine Environment – areas that are strongly affected by marine and salt laden atmospheres.

2. Industrial Environment – areas of industrial pollution.

3. Swimming & Leisure Pool Environment – areas enclosing or in close proximity to a swimming or leisure pool.

In the case of these “hazardous” environments additional precautions need to be followed and these are outlined in the sections that follow.

Conformation of Applied Film Thickness for Interpon D Applicators

Test in accordance with:- BS EN 12206-1., Annex C

Interpon D1036
Film Thickness for a Non Hazardous Environment (C3 and Below)
The average minimum thickness of the applied coating must be at least 60 microns and not less than 48 microns at any point.

Film Thickness for a Hazardous Environment (C4,C5,)
The minimum thickness of the applied coating must be at least 60 microns.

Interpon D2525
Film Thickness for a Non Hazardous Environment (C3 and Below)
The average minimum thickness of the applied coating must be at least 60 microns and not less than 48 microns at any point.

Film Thickness for a Hazardous Environment (C4,C5)
The minimum thickness of the applied coating must be at least 60 microns.

NB: Certain powder coatings require a minimum thickness of 80 microns to ensure full pigment opacity. Always check the Technical Data Sheet and avoid applying a film thickness >120µ maximum average.

Please see the Guarantee Matrix for the cleaning requirements

No blisters, craters, pinholes or scratches shall be visible from a distance of 1 metre.
However, note BS EN12206-1. specifies a distance of 3 metres for internal components and 5 metres for external components. It is recommended that clarification of this point is made with the end user.

Interpon D1036 Hazardous Environments – UK/Local. Guarantee Conditions

The ability of Interpon D1036 range of Architectural Powder Coatings to protect and decorate aluminium is affected by many environmental factors including location, pollution, contamination, erosion etc. The effect of these factors is exaggerated when the location is hazardous such as a marine or industrial environment. Any guarantee, if offered will be considered with prior knowledge of the location and any factors that may affect the life expectancy of the coating.

6.1.1 Marine Environments (C4 & C5 Coastal)

A marine environment is any location within 5,000 metres of a costal shoreline and may also include areas such as estuaries and tidal rivers.

For areas 5,000 – 2,000 metres from the marine environment the following additional precautions must be followed:

Interpon D1036	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 12 months.

For areas 2,000 – 500 metres from the marine environment the following additional precautions must be followed:

Interpon D1036	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 6 months.

For areas 500 – 50 metres from the marine environment the following additional precautions must be followed:

Interpon D1036	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 3 months.

For areas less than 50 metres from the high water level of a marine environment then no guarantee is offered. Under these circumstances you should refer to Akzo Nobel Powder Coatings Ltd.

6.1.2 Industrial Environments (C4 & C5 Industrial)

An industrial environment is any location within 5,000 metres of a source of solid, liquid or gaseous airborne pollution that may cause the degrading of the powder coating.
For areas 5,000 – 2,000 metres from the industrial environment the following additional precautions must be followed:

Interpon D1036	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 12 months.

For areas 2,000 – 500 metres from the industrial environment the following additional precautions must be followed:

Interpon D1036	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 6 months.

For areas 500 – 50 metres from the industrial environment the following additional precautions must be followed:

Interpon D1036	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 3 months.

For areas less than 50 metres from an industrial environment no guarantee is offered. Reference should be made to Akzo Nobel Powder Coatings Ltd.

6.1.3 Swimming and Leisure Pools

A hazardous environment is created inside a swimming pool building as a result of high humidity and chemical build up.

The design of the structure should be such as to facilitate easy run off of liquid materials and the avoidance of all water traps. This will ensure there is no build-up of concentrated contaminants and prevent corrosion cells forming.

Interpon D1036	Change to Terms and Conditions
Film Thickness	60 microns minimum
Non-Significant Surfaces	Minimum 40 microns
Edge Protections	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakages in the film to be repaired within 24 hours.
Cleaning & Maintenance	All internal coated components must be washed with clean (chemical free) water at least once per week to ensure no chemical build up. All external facade components should be washed every 3 months.

6.1.4 Quality Testing for Hazardous Environments

The frequency of testing for Hazardous environments must be increased and an additional set of panels prepared and stored at the Approved Architectural applicators premises for the period of the guarantee.

These panels will be made available to AkzoNobel Powder Coatings Technical Department upon Request Only.

Recommended Test Frequency

Lot size	Number of samples. (Random selection)	Accepted limit for sub-standard samples
1 – 10	All	0
11 – 200	10	0
201 – 300	15	0
301 – 500	20	1
501 – 800	30	1
801 – 1,300	40	1
1,301 – 3,200	55	2
3,201 – 8,000	75	3
8,001 – 22,000	115	4
22,001 – 110,000	150	5

Akzo Nobel Powder Coatings Ltd. must be informed of any failures and in case of failure the work must be quarantined until a full evaluation of the failure has been investigated by Akzo Nobel Powder Coatings Ltd.

6.1. Interpon D2525 Hazardous Environments – UK/Local. Guarantee Conditions

The ability of Interpon D2525 range Architectural Powder coatings to protect and decorate aluminium is affected by many environmental factors including location, pollution, contamination, erosion etc. The effect of these factors is exaggerated when the location is hazardous such as a marine or industrial environment.

Any guarantee, if offered will be considered with prior knowledge of the location and any factors that may affect the life expectancy of the coating.

6.2.1 Marine Environment (C4 & C5 Coastal)

A marine environment is any location within 5,000 metres of a costal shoreline and may also include areas such as estuaries and tidal rivers.

For areas 5,000 – 2,000 metres from the marine environment the following additional precautions must be followed:

Interpon D2525	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 12 months.

For areas 2,000 – 500 metres from the marine environment the following additional precautions must be followed:

Interpon D2525	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 6 months.

For areas 500 – 50 metres from the marine environment the following additional precautions must be followed:

Interpon D2525	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 3 months.

For areas less than 50 metres from the high water level of a marine environment then no guarantee is offered. Under these circumstances you should refer to Akzo Nobel Powder Coatings Ltd.

6.2.2 Industrial Environment (C4 & C5 Industrial)

An industrial environment is any location within 5,000 metres of a source of solid, liquid or gaseous airborne pollution that may cause the degrading of the powder coating.

For areas 5,000 – 2,000 metres from the industrial environment the following additional precautions must be followed:

Interpon D2525	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 12 months.

For areas 2,000 – 500 metres from the industrial environment the following additional precautions must be followed:

Interpon D2525	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 6 months.

For areas 500 – 50 metres from the industrial environment the following additional precautions must be followed:

Interpon D2525	Change to Terms and Conditions
Minimum Film Thickness	60 microns on all significant surfaces
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakage in the film to be repaired within 24 hours.
Cleaning & Maintenance	At least every 3 months.

For areas less than 50 metres from an industrial environment no guarantee is offered. Reference should be made to Akzo Nobel Powder Coatings Ltd.

6.2.3 Swimming and Leisure Pools

A hazardous environment is created inside a swimming pool building as a result of high humidity and chemical build up.

The design of the structure should be such as to facilitate easy run off of liquid materials and the avoidance of all water traps. This will ensure there is no build up of concentrated contamination and prevent corrosion cells forming.

Interpon D2525	Change to Terms and Conditions
Film Thickness	60 microns minimum
Non-Significant Surfaces	Minimum 40 microns
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakages in the film to be repaired within 24 hours.
Cleaning & Maintenance	All internal coated components must be washed with clean (chemical free) water at least once per week to ensure no chemical build up. All external facade components should be washed every 3 months.

6.2.4 Quality Testing for Hazardous Environments

The frequency of testing for Hazardous environments must be increased and an additional set of panels prepared and stored at the Approved Architectural applicators premises for the period of the guarantee. These panels will be made available to AkzoNobel Powder Coatings Technical Department upon Request Only.

Recommended Test Frequency

Lot size	Number of samples. (Random selection)	Accepted limit for sub-standard samples
1 – 10	All	0
11 – 200	10	0
201 – 300	15	0
301 – 500	20	1
501 – 800	30	1
801 – 1,300	40	1
1,301 – 3,200	55	2
3,201 – 8,000	75	3
8,001 – 22,000	115	4
22,001 – 110,000	150	5

Akzo Nobel Powder Coatings Ltd. must be informed of any failures and in case of failure the work must be quarantined until a full evaluation of the failure has been investigated by Akzo Nobel Powder Coatings Ltd.

6.2. Interpon D1036 and D2525 Hazardous Environments – European/Global Guarantee Conditions

6.3.1 Marine (C4 & C5 Coastal) and Industrial (C4 & C5) Environment

Under the conditions of the European/Global guarantee, there are additional precautions that need to be followed for areas between 50-5000 metres from the marine and industrial environments.

Interpon D1036 and D2525	Change to Terms and Conditions
Pre-Treatment	Etch rate of at least 1.5g/m²
Film Thickness	60 microns minimum
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakages in the film to be repaired within 24 hours.
Cleaning & Maintenance	See Guarantee Matrix (page 28)

Please note that there are no differential requirements for Interpon D1036 and D2525.

6.3.2 Swimming and Leisure Pools

A hazardous environment is created inside a swimming pool building as a result of high humidity and chemical build up.

The design of the structure should be such as to facilitate easy run off of liquid materials and the avoidance of all water traps. This will ensure there is no build up of concentrated contamination and prevent corrosion cells forming.

Interpon D1036 and D2525	Change to Terms and Conditions
Film Thickness	60 microns minimum
Edge Protection	There must be no bare metal edges. All mitres, cut edges and drilled holes to be sealed.
Repair Procedure	All breakages in the film to be repaired within 24 hours.
Cleaning & Maintenance	All internal coated components must be washed with clean (chemical free) water at least once per week to ensure no chemical build up.

7. Cleaning and Maintenance Procedures

During the life of the coating it is necessary to ensure the coating is maintained and cleaned.

7.1. Cleaning and Maintenance Guide – Interpon D1036

The Interpon D1036 range of Architectural Powder Coatings are organic coatings that need to be cleaned and maintained regularly to ensure that the decorative and protective properties of the coating are retained.

Specific reference should be made to the terms and conditions of the relevant Interpon D1036 product Guarantee which demands that a routine cleaning & maintenance schedule must be implemented for the guarantee to be valid.

For any particular region or territory, there may be local regulations or local requirements to be met in order to achieve conformance to certain published quality labels or standards. It is the users' responsibility to be aware of such standards.

The frequency of such cleaning will depend on many factors including:

- The geographical location of the building
- The environment surrounding the building, i.e., marine, swimming pool, industrial, or a combination of these environments etc.
- Levels of atmospheric pollution
- Prevailing wind
- Protection of the building by other buildings
- Possibility of airborne debris (e.g. sand/dust etc.) causing erosive wear of the coating
- If the environmental circumstances change during the lifetime of the building (e.g. rural becomes industrial)

The best method of cleaning is by regular washing of the coating using a solution of warm water and mild detergent. All surfaces should be cleaned using a soft cloth or sponge, using nothing harsher than natural bristle brushes. (Cleaning of window sections etc. can be conveniently carried out at the same time as glazing cleaning.)

The frequency of cleaning depends in part on the standard of appearance that is required and also the requirements to remove deposits that could, during prolonged contact with either the powder film or the metal substrate, (if exposed) cause damage.

In hazardous environments the normal frequency of cleaning should be at a maximum of three monthly intervals. However where there is high atmospheric pollution or an extremely hazardous atmosphere (i.e. a combination of factors above or others) the period between cleaning should be reduced.

Where the atmosphere is deemed to be non hazardous, e.g., rural or a "normal" urban environments, then the period between cleaning can be extended up to a maximum of 12 months. However, if heavy soiling occurs more regular cleaning is required.

The process should be conducted by a professional cleaning contractor and records of all cleaning schedules and frequencies shall be kept and maintained and made available to AkzoNobel if requested. Full records of the cleaning programme carried out should be kept and retained to ensure compliance with the Guarantee.
If the project is subject to any hazardous unusual environmental factors, or is close to salt water, an estuary or marine environments then AkzoNobel must be consulted on an individual project basis.

Do not under any circumstances use strong solvents or solutions containing:
Chlorinated Hydrocarbons
Esters
Ketones
Abrasive Cleaner or polish

For fine texture finishes within the D1036 collections, it is recommended that spiral wrap is used as an alternative to low tack tape to ensure sufficient protection of the coated parts

7.2. Cleaning and Maintenance Guide – Interpon D2525

The Interpon D2525 Range of Architectural Powder Coatings are organic coatings, which need to be cleaned and maintained regularly to ensure that the decorative and protective properties of the coating are retained.

Specific reference should be made to the terms and conditions of the relevant Interpon D2525 Product Guarantee, which demands that a routine cleaning & maintenance schedule must be implemented for the guarantee to be valid.

For any particular region or territory, there may be local regulations or local requirements to be met in order to achieve conformance to certain published quality labels or standards. It is the users' responsibility to be aware of such standards.

The frequency of such cleaning will depend on many factors including:

- The geographical location of the building
- The environment surrounding the building, i.e., marine, swimming pool, industrial, or a combination of these environments etc.
- Levels of atmospheric pollution
- Prevailing wind
- Protection of the building by other buildings
- Possibility of airborne debris (e.g. sand/dust etc.) causing erosive wear of the coating
- If the environmental circumstances change during the lifetime of the building (e.g. rural becomes industrial)
  The best method of cleaning is by regular washing of the coating using a solution of warm water and mild detergent. All surfaces should be cleaned using a soft cloth or sponge, using nothing harsher than natural bristle brushes. (Cleaning of window sections etc. can be conveniently carried out at the same time as glazing cleaning.)

The frequency of cleaning depends in part on the standard of appearance that is required and also the requirements to remove deposits that could, during prolonged contact with either the powder film or the metal substrate, (if exposed) cause damage.

In hazardous environments the normal frequency of cleaning should be at a maximum of three monthly intervals. However where there is high atmospheric pollution or an extremely hazardous atmosphere (i.e. a combination of factors above or others) the period between cleaning should be reduced.

Where the atmosphere is deemed to be non hazardous, e.g., rural or a "normal" urban environments, then the period between cleaning can be extended up to a maximum of 18 months. However, if heavy soiling occurs more regular cleaning is required.

The process should be conducted by a professional cleaning contractor and records of all cleaning schedules and frequencies shall be kept and maintained and made available to AkzoNobel if requested.
Full records of the cleaning programme carried out should be kept and retained to ensure compliance with the Guarantee.
If the project is subject to any hazardous unusual environmental factors, or is close to salt water, an estuary or marine environments then AkzoNobel must be consulted on an individual project basis.

Do not under any circumstances use strong solvents or solutions containing:
Chlorinated Hydrocarbons
Esters
Ketones
Abrasive Cleaner or polish

For fine texture finishes within the D2525 Futura and Structura collections, it is recommended that spiral wrap is used as an alternative to low tack tape to ensure sufficient protection of the coated parts.

8. Interpon D Repair Guide

Damage to the Interpon D Range of Powder Coatings may be caused during transportation, installation or as a result of the action of other trades (e.g. scaffold damage) on site.

For on-site rectification of small damaged areas Cromadex 800 Two Pack Non-Isocyanate Acrylic Topcoat, matched for colour and gloss to the appropriate Interpon D Range shade, should be used. Where brush application is to be employed, Interthane 990 should be used to repair gloss systems, and Interthane 870 for off-gloss systems.

Where damage has exposed the metal, the prepared metal only should be primed with Cromadex 903 Two Pack Chromate-Free Etch Primer. Please see the relevant data sheets for thinning ratios and drying times.

Please refer to Appendix 3 for the technical data sheets for Cromadex 800, Cromadex 903, Interthane 990 and Interthane 870.

The following information and repair methods/statements etc. are intended for guidance only. It is the client's responsibility to ensure that the products to be used are fit for purpose.

For additional information contact your local AkzoNobel Helpline.

Repair paints may weather at different rates to the original powder coatings.

Method 1:

Minimum requirements to repair small isolated areas (approx.5-6cm²) and scratch damage:

a. Clean all surfaces to be painted with Cromadex 678 Spirit Wipe or equivalent by applying liberally using a clean lint-free cloth and wipe dry using lint-free cloths physically removing all sealants and mastics, etc.

b. Abrade all areas to be coated with abrasive paper, up to P320 grade, if necessary, to ensure a suitable keyed surface, ready to be coated, then wipe clean using lint free tac rags.

c. Apply by brush to exposed metal surfaces only one thin coat of Cromadex 903 Two Pack Chromate-Free Etch Primer and allow to dry for one hour.

d. Apply by brush or spray one coat of the relevant topcoat, matched to shade and gloss.

Method 2:

Minimum requirements to repair larger areas of damage:

a. Mask all surrounding surfaces of the damaged areas to the edge of the panel or a suitable breakline.

b. Clean all surfaces to be coated with Cromadex 678 Spirit Wipe or equivalent, by applying liberally using a lint free cloth, and wipe dry using lint free cloths, physically removing all sealants and mastics etc.

c. Abrade all areas to be coated with abrasive paper, up to P320 grade, if necessary, to ensure a suitable keyed surface, ready to be coated, then wipe clean using lint free tac-rags.

d. Apply by brush or spray to the exposed metal surface only one thin coat of Cromadex 903 Two Pack Chromate-Free Etch Primer and allow to dry for one hour.

e. Apply by spray a minimum Dry Film Thickness of 40 microns of Cromadex 800 Two Pack Non-Isocyanate Acrylic Topcoat matched to shade and gloss, as detailed in the Cromadex 800 Two Pack Non-Isocyanate Acrylic Topcoat Data Sheet.

f. Alternatively apply by brush 50 microns of Interthane 990 for gloss systems, or 50 microns of Interthane 870 for off-gloss systems, as detailed in the relevant product data sheets.

Method 3:

Minimum requirements for complete re-sprays on site.:

a. Substrate Preparation

a. Clean all surfaces using Cromadex solvent based degreaser 06-55 or equivalent and physically remove all sealant and mastics products. Degrease all areas to be abraded using lint-free cloth. Inspect and remove all mastic sealant adjoining any surface to below 4mm of metal edges.

b. Apply protective masking to unaffected areas as required.

c. Mechanically abrade to sound substrate. Drilled holes to be countersunk and butt joints to be filled, the surface should taper on the side for filling.

d. Abrade mechanically or by hand using 60/80 abrasive paper areas to receive filling media.

e. Clean down with vacuum or air, thoroughly degrease with Cromadex 678 Spirit Wipe or equivalent areas to be filled, physically removing any sealant mastics etc, where necessary.

f. Mix the components of the filling media as specified in the manufacturers recommendations and apply directly to the substrate. Work the material to remove any trapped air and finish to profile shape. Allow to fully curing as per manufacturers recommendations.

g. Abrade with 80 abrasive paper to correct profile whether by hand or mechanical action. Repeat items (f) and (g) if required. Clean down after each operation to remove dust and debris.

h. Abrade all areas coated with abrasive paper up to P320 grade, if necessary, to ensure a suitable keyed surface, ready to be coated, then wipe clean using lint free tac-rags.

i. De-mask and clean down.

b. Recoating

(a) Mask unaffected areas prior to painting. Degrease using Cromadex 678 Spirit Wipe and lint-free cloth and remove all dust.

(b) Apply one spray coat of Cromadex 903 Two Pack Chromate-Free Etch Primer to any areas of exposed metal to a minimum Dry Film Thickness of 10 to 15 microns. Allow curing as recommended and lightly key surface. Remove all debris and tac-rag surface.

(c) Apply Cromadex 800 Two Pack Non-Isocyanate Acrylic Topcoat to a minimum Dry Film Thickness of 40 microns, allow to flash off and cure as detailed in the Cromadex 800 Two Pack Non-Isocyanate Acrylic Topcoat Data Sheet.

(d) De-mask, clean down and remove debris, etc.

(e) Re-apply sealant/mastic on required areas.

(f) Present finished painted areas for inspection and approval of client.

9. Technical Information

9.1. Solvent Cure Test

This solvent test is based on BS4842 and can be used as a quick method for determining the extent of cure of a powder-coating film.

Principle

Assessment of the effectiveness of the curing process for a powder-coated finish by evaluation of the resistance to an appropriate solvent.

Procedure

Take a cotton wool pad, approximately 25mm in diameter, of a colour dissimilar to that of the test coating, and moisten it with methyl isobutyl ketone (MIBK)*. Firmly rub the moist pad on the coated surface, backwards and forwards up to thirty times in each direction, taking about 30 seconds in total.

Remove the pad and allow the solvent to evaporate from the surface of the paint film. Examine, using your normal vision, the pad and paint film. Removal of the coating on to the pad and significant softening of the paint film indicates undercure of the coating. In contrast, slight staining of the pad and/or loss of gloss of the paint film is usual for a fully-cured powder-coating.

*Also known as 4-methyl-pentan-2-one, MIBK is available from suppliers of commodity chemicals such as Merck Ltd, Poole, Dorset, Telephone 01202 661616, BDH, or Sigma-Aldrich.

Alternatively some applicators prefer methyl ethyl ketone, MEK.

9.2. Sealant and Mastic

For specific products and technical data the supply companies should be contacted. For safety, we do not recommend glazing systems utilising, solely, direct chemical bonding to the PPC layer without additional physical supporting structures. Systems companies must ensure the suitability and safety of mastics and sealants when combined with Interpon PPC, consideration of PPC adhesion to substrate conversion coats should also be considered.

Before any mastics or sealants are applied, all surfaces must be clean and free from any dirt, oil, water or component that may detract from the adhesion. It may be necessary to clean the surface of the powder coating with either a mild detergent or in extreme cases a cloth soaked in white spirit.

Mastic & Sealant Removal

Any excess mastic or sealant should be removed as soon as possible and before the compound has cured or hardened.

Do not use scrapers, abrasive papers or similar items to clean the area as this may damage the surface of the powder coating.

Water and a small amount of mild detergent may be used to clean the surface of the powder coating.
Do not under any circumstances use strong solvents or solutions containing:
Chlorinated Hydrocarbons
Esters
Ketones
Abrasive cleaners or polish

Note: Under certain adverse weather conditions the acetic acid vapour released by the sealants have been known to affect the powder coating. Application of sealants should be in dry well ventilated conditions in accordance with the manufacturers instructions.

9.3. Low Tack Tape

Only protective tape with a low tack and approved by the suppliers of the protective tape for use on Powder Coatings should be used.

Clear tapes should be removed after a period not exceeding three (3) months. If further protection is required new tape should be applied. Tape should be applied and removed as recommended by the tape supplier. Taped components should be protected from excessive humidity, water and heat.

Any residue from the tape should be removed as soon as possible.

Do not use scrapers, abrasive papers or similar items to clean the area as this may damage the surface of the powder coating.

Water and a small amount of mild detergent may be used to clean the surface of the powder coating.

Where it is absolutely necessary a small amount of white spirit may be used followed by cleaning with water and mild detergent.

Do not under any circumstances use strong solvents or solutions containing:
Chlorinated Hydrocarbons
Esters
Ketones
Abrasive cleaner or polish

Note: Certain product types, for example Interpon Futura Sable and Textura ranges, due to their surface chemistry, may not allow adequate adhesion of low tack tape to the powder paint surface. Such products can be protected by spiral wrapped polythene or similar. Wrapped components should be protected from excessive humidity, water and heat.

9.4. Powder Coating Films and Control of Substances Hazardous to Health (COSHH)

Adequately cured and adherent films of polyester powder coatings may be expected to present a negligible hazard under normal conditions of use where the risk of transfer of material into the body is minimal.

Exceptions could arise as follows:

- Cutting, sawing, sanding or drilling operations, which create dust must be considered. In this case the dust limits, which apply to the powder coating would be relevant and the necessary precautions should be taken.

- Burning (pyrolysis) of the films can give rise to toxic fumes depending on the various factors present during combustion, i.e. temperature, reaction rate, oxygen availability etc.

  In common with all paints, carbon monoxide, carbon dioxide, aliphatic and/or aromatic hydrocarbons and/or simple derivatives would be produced. Additionally the following could be produced: Acrolein and other aldehydes, phthalic anhydride, phenol, nitrogen oxides, amines, hydrogen cyanide and low molecular weight free isocyanate.

Further information on the pyrolysis of cured films is given in the British Coating Federations Guidance Letter Ref. 118.

9.5. Cleaning of Brick and Concrete

Chemical Cleaners

The cleaning solutions used on both brick and concrete contain strong chemicals that can cause damage to the powder-coated surface. All exposed powder-coated surfaces should be fully protected.

If any such solutions or chemicals come in contact with the powder-coated surface, wash immediately with copious amounts of water.

Prolonged exposure can cause discolouration of the film, loss of gloss and damage to the coating surface.

Abrasive Blasting

The cleaning of concrete or brick by using abrasive shot blasting must be carried out in such a way that all structures coated with powder coating must be fully protected. The abrasive medium will strip the powder coating from the metal substrate.

9.6. Fire Test Certificate

Building Regulations SI 2018/1230 (Dec 2018) ban the use of combustible materials on new high-rise homes over 18 metres high, schools, hospitals, residential care homes and student accommodation.

The new regulation requires all materials that become part of an external wall to achieve a minimum class A2-s1, d0 rating (limited combustibility) when tested in accordance with EN13501-1.

Exempted components (7.3) include door frames and window frames.

Interpon D coatings have been tested and certified to generically meet EN13501-1 A2-s1, d0 between 60-120 microns. The coating film thickness should not exceed an average of 120 microns to ensure A2 compliance and some applications may give differing results – system manufacturers should offer suitable guidance to powder applicators.

Building Regulations and Legislation are updated regularly so expert advice relating to Fire Test requirements and certification should be sought if required.

Should Fire certification be required please contact Akzo Nobel Directly.

9.7. Metallic and Special Effect Powders

The Interpon D range includes metallic and special effect powder coatings. Some of these are represented in the Collection Futura, RAL Metallics, Brilliance, Anodic, Stone-Effect and Precis Ultra-Matt Colour Cards.
Metallic coatings are chosen primarily for their stunning visual appeal and optical depth particularly when compared against standard solid colour products.

Depending on the visual aspect of the coating or type of metallic pigments used, the appearance of effect finishes may show subtle variations. In some instances, 'flip-flop' pigments might be used to further enhance these variations when viewed at different orientations and under varying light conditions. This is considered normal for such powder coatings, and adds to their attractiveness as a living coating, not a dull, lifeless colour.

- The metallic effect comes from either metal or mica platelets. Metallic colours can therefore look different depending on the angle of the light reflecting on the platelets, and their orientation.
- The orientation of these plates can be influenced both by the spraying conditions/equipment, by the melting process in the oven (where different melt viscosities are achieved on different geometry parts), and by the film thickness of the coating.
- Light from different sources may affect colour and effect.

All AkzoNobel metallic and effect coatings are application stabilized. The process of stabilization may differ depending on type of effect, colour and can be either by dry blending or bonding process.

It is important to mention that whilst strict quality control procedures are in place to maintain batch-to-standard and batch-to-batch consistency, due to their nature, the reproducibility during production of metallic and effect powders is more difficult than that for solid colours. **It is highly recommended on any individual project one batch of powder should be used, and if possible, the entire coating job should always be applied by the same coating company on the same coating line.** For further information regarding long term / large scale projects please refer to your local AkzoNobel representative for further guidance.

This document is intended to be used as guide for the applicator, to highlight which of the various application parameters might influence / affect appearance. The guide should also be used to help understand ideal application settings to optimize end result.

1. Application Parameters

Application parameters and process conditions influence colour and appearance of the finish. Therefore, it is necessary to maintain consistent application parameters on any given project once they are established. The following table summarizes parameters which should be monitored to achieve optimum and consistent results.

Whilst all of the application settings can be controlled, it is highly recommended to produce a reference panel or piece before starting the first full production run (using representative application parameters expected for the final coating) Reference samples should be sent to the contractor for approval before work commences, and these should show the likely range of colour variation to be expected. Colour and appearance should be checked continuously during the project. Once application conditions giving the desired effect are set, they should not be changed for the duration of application. Use of reference panel or pieces becomes increasingly significant especially if the project is coated across multiple production runs, coated parts are likely to be fitted together after application or multiple batches of powders are used.

Table 1.1 Recommended Application Settings

Powder Feed	All metallic powder coatings should be applied using a fluidised hopper. Best practice would be to fluidise the full box of material prior to delivering to the feed-hopper. Some powder coating feed systems utilise a mini fluidising hopper which is fed directly from the box, it is recommended in this instance to fluidise or at least aerate the full box of special effect powder prior to feeding to mini hopper. The use of direct box feed equipment may not consistently reproduce the required finish. This aspect becomes critical if the powder to be applied is to be reclaimed.	
Equipment Settings	Gun Type	Electrostatic Corona. Tribo guns are not recommended.
	Nozzle	Flat fan/Slot nozzle. Deflector cones should be avoided.
	Feed air	Set to achieve required film thickness as per product TDS
	Dilution air	Set to eliminate surging at gun tip. Too high dilution air may induce striping / patchy appearance.
	Voltage	Ideal range: 50-80kV
	Current	Ideal range: 8µA to 20µA
	Gun distance	Maintain a min. spray distance of 25cm. Optimum should be to set the guns 25cm – 40cm from the surface to be coated.
	Reciprocator	Must be correctly configured to line speed to avoid 'Zig-Zagging' 'W' effect
	Iron collectors	Should not be used
	Reclaim	See section 3
Important considerations	Large panels or lengths of extrusion which have a large visible area	Application via automatic application equipment to ensure a consistent finish
	Large flat substrates	Applying with increased gun to work piece distance can be beneficial.
		Transportation / total air should be set as to avoid surging / spitting. Setting too high can increase the likelihood of striping, particularly if gun to work piece distance is less than 25cm. Transportation / total air should be set in balance with gun to work piece distance. Increased gun to work piece distance may require increased transportation / total air.

If manual application is required e.g., when powder coating complex shapes, touching-in missed areas etc., it is advised (if possible) to use the same manual operator and to use similar settings kV / µA to the automatic guns. it is important to maintain an even gun distance from the part to minimise edge build-up and back ionization if the gun is held too close. A good spray technique is critical, avoid figure of eight motion or inconsistent technique. Any manual application should take place prior to auto application.

The optimum line set-up must be developed in a pre-trial phase and then applied to the full production scale up. Always record and maintain the equipment parameters throughout the initial production run and all subsequent runs for the same contract.

For recommended curing conditions always refer to the Technical Data Sheet.

2. Line and Equipment Considerations

One of the most important considerations is the correct and efficient earthing of the coating line, the object to be coated, and all equipment used. The conveyor, jigs/hangers, oven, booth, guns, and all ancillary equipment must be well earthed, all jigs/hangers should be clean. A good metal to metal contact is vital for efficient coating and to avoid static discharge.

It is not recommended to use Tribo guns for the application of metallic powder coatings. Although metallic coatings can be applied effectively at the beginning of a run, metallic powders tend to coat the inside of the gun reducing charge effectiveness which may result in poor application and appearance variations.

The orientation of components during coating can also produce visual differences in the finish. i.e., vertically hung versus horizontally hung. Care should also be taken to hang parts in the same orientation they are to be installed.

3. Reclaimed Powder

When using metallic or effect powders it is not always possible to reclaim the powder. Ability to reclaim depends on manufacturing process of metallic powders.

It is strongly recommended that dry-blended metallic powders should be sprayed to waste. Reclaim process can induce pigment separation from basecoat which can result in a dramatic inconsistency in appearance. Dry blended metallics can be more prone to picture framing effect on edges and poor penetration into recessed areas.

Bonded powder coatings can often be recycled. However, best practise, particularly where precise appearance control is required would be to spray to waste. This is of particular importance when coating large projects across multiple production runs. If choosing to reclaim, powder amount should be carefully controlled and ideally reclaim is automated. It is often recommended that virgin to reclaim powder ratio should not exceed 80:20. Percentage of reclaim is highly affected by the type of shape being coated. For example, coating of large flat panels will generate low levels of reclaim but when coating mesh panel or small section extrusion, reclaim percentage will be relatively high. Reclaim percentage is also affected by the efficiency of the application and reclaim system; mono cyclone versus twin or multi cyclone versus cartridge recovery. If the reclaim system to be used is of cartridge design, please refer to your local AkzoNobel representative for further guidance.

In case metallic and effect coatings contain high levels of pigment where a major influence on overall appearance is under consideration, then even certain bonded metallics should still be sprayed to waste. Whilst reclaiming of bonded powder coatings is possible, extra care should always be taken to ensure appearance consistency is maintained. It is best practice to keep the hopper well charged with virgin powder and to control reclaim at all times. To determine whether a metallic or effect coating is dry-blended or bonded, it is advised to contact your local AkzoNobel representative to seek full clarification.

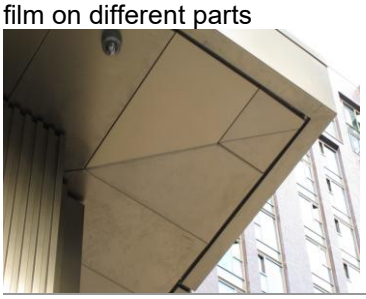
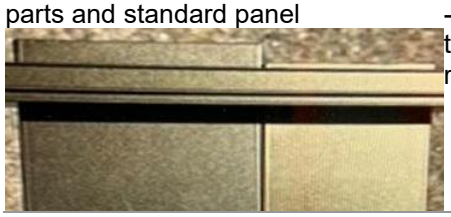
If applicator uses recycled powder, it is important to validate appearance of coated test pieces using both virgin and mixed powder. If recycled powder level fluctuates a lot, i.e. when coating varying component type during a single run, this could potentially lead to colour inconsistency.

4. Applicator Considerations

It is the responsibility of applicator to determine each project size and total project duration. If project size or duration requires more than one batch of powder, it is advised to communicate with their local AkzoNobel representative to discuss batch management (ensuring sufficient powder stock for the entire project) and any additional controls. In certain instances, it may be recommended to use one batch per phase, floor etc. If multiple batches are used when coating metallic or effect projects, the applicator must compare appearance against reference panels or parts. Careful consideration should also be given to how coated parts are to be assembled during fabrication. Appearance variations are likely to be more pronounced if parts from multiple production runs or batches are placed together.

5. Trouble Shooting

Table 5.2. Trouble shooting during application.

Problem	Potential Cause	Solution
Spits on coated parts, dry powder appearance	Metallic pigment build-up in the application equipment	-Apply using increased powder transportation/total air pressure -If fitted to application gun, check if rinse air is working -Set voltage to 50-100kV
Poor deposition (powder falling from surface)	Too high voltage (metallic pigment restricts charging in powder cloud)	-Set charging voltage between 50-100kV -Check current limiter (µA) on gun is not set too low. -Set current to between 8µA to 20µA
Patchy appearance 	-Incorrect nozzle fit -Powder fed from vibrating box feed -Gun to substrate distance is too close -Uneven mix of powder and metallic particles	-Ensure gun is fitted with a flat nozzle -Feed powder always from a fluidized hopper system -Maintain min. spray distance where possible (25-40 cm) -Ensure all powder from box is emptied into hopper
Variation in appearance of finished film on different parts 	-Variation in equipment settings -Imbalance of powder added to system	-Maintain original settings throughout production -If manual application must be used (i.e. for complex shapes, non-panel work etc.), where possible let the same operator to complete the job and use gentle spraying, avoiding a figure of eight motion -Ensure all powder from box is emptied into hopper
Differing aspect between production parts and standard panel 	-Incorrect film thickness -Imbalance of powder added to the system (virgin to reclaim ratio)	-Ensure film thickness is within recommended tolerances - Ensure all powder from box is emptied into the hopper.

6. Application Considerations for architectural collections

6.1 Interpon D2015 Précis Ultra Matt

Interpon D2015 Précis Ultra Matt series are super durable weather resistant polyester powder coatings, compared to solid non-metallic powder coatings may place increased demands on application processing.

This section helps users with the optimum processing of Précis Ultra Matt powder coatings.

General

Précis Ultra Matt powder coatings have increased charge acceptance properties when compared with solid non-metallic powder coatings, as a result of these properties transfer efficiency is excellent which can lead to increased DFT and in some instances undesirable back ionisation.

Précis Ultra Matt powder coatings should be preferably applied without recovery; however, if recovery is used it is recommended to not exceed the ratio virgin/recovery 80/20.

The amount of powder needed for the coating of the entire order should be determined in advance and a certain reserve planned in order to be able to coat the entire order with one powder batch.

Application

Powder coatings of the Interpon D2015 Précis Ultra Matt series should be applied with corona systems with negative polarity.

Since the processing of Précis Ultra Matt powders is more critical than that of solid colours, it makes sense to determine the optimum process parameters such as high voltage, feed air, additional air, gun to workpiece distance etc. on the coating line in preliminary tests. This recommendation is of particular importance when powder coating complex parts / extrusions or where deep recesses are present. These parameters should then be maintained during subsequent application runs.

Processing Recommendations

1. Use guns with flat jet nozzles and air-flushed electrodes. Blow guns, hoses and injectors regularly in the direction of flow.
2. If possible, perform the complete coating job in one powder coating run, especially for parts that are installed/combined together.
3. Use one powder coating batch per coating order, even if it consists of partial orders.
4. All metallic powder coatings should be applied using a fluidised hopper.
5. There should be minimal changes to the application parameters (high voltage, feed air, additional air, etc.) within a coating job.
6. Pay attention to a uniform layer thickness distribution (sinus diagram).
7. Back ionisation effects should be avoided by taking appropriate measures.
8. Ensure good grounding of the coating line, particularly parts. Clean hooks, jigs should be used at all times.
9. The suitability of application parameters should be determined in preliminary tests. Good results could be achieved with the following settings:

Table 6.1 Recommended Application Settings

Powder Feed	Feeding	Recommended fluidized bed
Equipment Settings	Gun Type	Electrostatic Corona.
	Nozzle	Flat jet / slot nozzle
	Iron ring	without
	Electrode rinsing air	0.2 – 0.3 Nm^3/h
	High Voltage	Ideal range: 55-60kV
	Current limit	5 to 10µA
	Powder output	Adjust to achieve required DFT
	Reclaim	Preferably spray to waste, recommended virgin/reclaim 80/20
	Gun/object distance	25 – 40cm
	Target layer thickness	60 - 110 µm

Curing

Different cure profiles are to be avoided.

Try to avoid curing thick and thin gauge parts together.

The specified stoving conditions (object temperatures and holding times) of the technical product data sheet should be observed.

Co-applicable Documents

Technical data sheets for the product line Interpon D2015 Précis Ultra Matt.

6.2 Interpon D2525 Stone-Effect

Powder coatings of the Interpon D2525 Stone Effect series are highly weather-resistant polyester powder coatings and, compared to uni-powder coatings, place far greater demands on processing. This section helps users with the flawless processing of Stone Effect powder coatings.

General

It should be noted that the cured powder coating surface can lead to an uneven visual impression when using different spray elements as well as the processing of different powder coating lots of a powder coating. When applying these powder coatings, colour, gloss or aspect differences can occur depending on the system. Therefore, we generally recommend an appropriate entrance inspection as well as a continuous examination accompanying the production. The special processing parameters can lead to additional expenses. The coating with stone-effect powders can therefore not be calculated analogously to the coating with uni-tones. Stone effect powder coatings are basically to be processed without recovery. The amount of powder needed for the coating of the entire order must be determined in advance and a certain reserve planned in order to be able to coat the entire order with a powder batch.

Application

Powder coatings of the Interpon D2525 Stone Effect series can be processed with corona systems with negative polarity. An application with positive polarity (corona or tribo) creates a different look and is not recommended. Since the processing of stone effect powders is more critical than that of solid colours, it makes sense to determine the optimum system parameters such as high voltage, dosage, distance spray gun / substrate, etc. on the coating system in preliminary tests. These parameters are then to be maintained later in the series coating.

Processing Recommendations

1. Use guns with flat jet nozzles and air-flushed electrodes. Blow guns, hoses and injectors regularly in the direction of flow.
2. Perform the complete coating job in a powder coating line, especially for parts that are installed/combined together.
3. Use of a powder coating batch for a coating order, even if it consists of partial orders.
4. No change in the system parameters (high voltage, conveying air, metering, etc.) within a coating job.
5. Always precoat for difficult parts, never recoating (cloud formation!)
6. Pay attention to a uniform layer thickness distribution (track diagram).
7. Rewind effects should be avoided by taking appropriate measures.
8. Pay attention to the careful grounding of the parts.
9. We generally recommend coating only on one side.
10. In the case of two-sided application, an aspect difference in the edge area ("picture frame effect") may occur. This must be checked by appropriate preliminary tests and, if necessary, released by the end customer.
11. In the case of parts to be coated on both sides, the main light side must always be coated last. The parts should be hung up in such a way as to exclude any encroachment on the main visual side. The powder guns should be located opposite each other in automatic systems.
12. The application to so-called "scooping parts" or geometrically complex components must be checked by preliminary tests and, if necessary, released by the end customer.
13. The suitability of the application device and the application parameters are to be determined in preliminary tests. Good results could be achieved with the following settings:

Table 6.2 Recommended Application Settings

Equipment Settings	Pistol Type	Gema OptiFlex
	Pistol mouthpiece	Flat jet/slot nozzle
	Iron ring	Without
	Electrode rinsing air	0.2 Nm^3/h
	High Voltage	80 - 100 kV
	Current limit	50µA
	Powder output	100 – 120g/min and gun
	Total air	4.5 Nm^3/h
	Gun/object distance	30 cm
	Target layer thickness	80 - 110 µm

Co-Applicable Documents

Technical data sheets for the product line Interpon D2525 Stone Effect.

6.3 Interpon D Brilliance

The recommendations presented in this section are to be intended only for guidance for to implement the optimum line set-up for applying Interpon D Brilliance powders, including Interpon D1036 Matt, Interpon D2525 Matt, Interpon D1010 Matt and Interpon D2015 Matt Brilliance colours. The optimum line set-up must be found out in pre-trial phase and then applied in full scale production. Considering that transfer efficiency of metallic powder it is strongly affected by climate conditions of environment and powder storage (temperature and relative humidity) it is recommended to evaluate the starting line set-up conditions through a small pre-trial test every time a new full-scale production or a new powder batch is initiated. Interpon D Brilliance are metallic bonded powders according to Akzo Nobel bonding technology, if customer already use such quality powders it is recommendable to maintain the same line set-up conditions as starting point.

Recommendations for substrate preparation and line set-up

Aluminium components should receive a full multi-stage chromate conversion coating or a suitable chrome-free pre-treatment to clean and condition the substrate. Detailed advice should be sought from the pre-treatment supplier.

Galvanized steel components require surface preparation by either multi-stage pre-treatment using either zinc phosphate or chromate conversion or controlled sweep blasting. Depending on the type of galvanising, degassing or use of anti-bubbling additives may be required - follow the procedural advice of the pre-treatment supplier.

Cast and mild steel components require surface preparation by multi-stage pre-treatment using zinc phosphate (strongly recommended). For outdoor it is strongly recommended to use an anti-corrosive primer

For recommended curing conditions always refer to Interpon D Brilliance Technical Data Sheet.

Table 6.3 Recommended Application Settings

Equipment Settings	Gun Type	Electrostatic Corona
	Nozzle	Flat jet spray nozzle,
	Powder air	Manual application: Set Feed Air and Total Air to achieve even spray pattern. Important to apply using even spray pattern. Automatic line application air settings must be set up considering the film build and component geometry in relation to synchronism and gun voltage/current applied. It is advisable to choose a setting with Feed Air pressure as low as possible to reduce the likelihood of impact fusion in Venturi pumps. It is recommended to have the Total Air on high level to keep the powder cloud as de agglomerated as possible. If the automatic line is provided with tip-gun cleansing air, it is recommendable to be minimum 0.5 bar to avoid the formation of any agglomeration of gun-tip.
	Hopper	The use of direct box feed equipment may not reproduce fully the finish of colour standard. To ensure powder homogeneity, empty the boxes totally into the tray or feed hopper. Keep always over 50% powder volume of hopper.
	Voltage	Ideal range: 50-70kV
	Current	Ideal range: 5µA to 50µA
	Gun/object distance	Automated line: it must be set up considering the optimum synchronism between line speed, reciprocator stroke speed and film thickness build to be achieved in relation to component geometry. Best results seen with minimum of 250mm on automated lines Manual application: it is recommended to start with a distance of 200-250 mm to be possibly adjusted to achieve the desired film thickness build and even lay down.*
	Film thickness	Recommended range: 70 - 100 µm Film thickness <70µm should be avoided for to maintain a consistent colour through the work-piece surface Film thickness > 120µm should be avoided in order not to have undesired degassing, assembly fitting phenomena and decrease in film flexibility
	Reclaim	Unused powder can be recovered and recycled by using the most common equipment subject to normal controls on ratios of recycled-to-virgin powder. In any circumstances the recycled-to-virgin ratio should not exceed 1/5 (no more than 20% of recycled powder in the hopper)

*Gun settings will vary from customer to customer so these recommendations should be used for start-up guidance only.

Recommendations to avoid application issues

To prevent application issues like spitting, hose clogging, metal pigments agglomeration and impact fusion it is recommended to put in place the following best practice actions:

- Blow the hoses every 4 hours (twice per shift).
- Clean inside of each gun every 8 hours (every shift).
- At application start up blow clean the deflectors (gun tip) after 5-10min to remove the possible metal accumulation; repeat the operation if the deflectors do not stabilize clean. If the gun is provided with supplementary air to keep clean the gun diffuser: keep that air at maximum.
- In choosing the line setting up, always prefer the ones with conveying air pressures as low as possible in order to avoid impact fusion issue into the Venturi pumps.

9.8. Sealants Choice and Assessment

For the choice of the right sealant, it is strongly recommended to carry out adhesion tests in phase of pre-trail to choose the most suitable one before to go on full scale production. The sealants should be applied in fully accordance with the written recommendations and procedures of manufacturers. It is recommended for evaluation process to refer to following specification as well: ASTM C1184, C920-05, C794-93.

9.9. Corrective or Re-Painting of Powder Coatings

Although the re-painting invalidates the Interpon Architectural Guarantee it is advisable to seek the following information before commissioning re-painting.

1. Evidence of Track record.
2. Specification of repair process
3. Offer of guarantee on workmanship and quality
4. Product performance liability

All Repair Applicators should be able to carry out repairs using systems tested and approved by Akzo Nobel Powder Coatings Ltd.

The above information is intended as guidance only. It is the client's responsibility to ensure that the products and applicators systems to be used are fit for purpose.

9.10. Pre-Treatment Suppliers

A list of suggested Pre-treatment suppliers and suitable chemicals can be found through the following link. Chemical Pretreatment Systems (A-N°) - QUALICOAT

For specific products and technical data the individual companies should be contacted.

9.11. Structural Adhesives

A number of adhesives have been tested on Interpon D1036 and D2525. For more information including the laboratory reports and product data sheets for Sikasil® primers please contact the manufacturer directly.

9.12. Packaging of Coating Components – Blanching

Discolouration of coating after packaging.

The phenomenon known as Blanching may be observed after the storage of powder coated components under certain conditions. This issue is well known to coaters in Southern Europe but is relatively rare in Northern Europe and is sometimes called Water-spotting or Tiger Striping.

The conditions for blanching usually occur when coated components are wrapped in polyethene or low tack tape. Trapped humidity becomes active, usually in sunlight or during periods of elevated temperatures. Moisture trapped within the packaging, being subject to heating and cooling, is forced in to the coating surface resulting in a lighter or greyer colouration of the powder coated film. Generally, there is no adverse or physical deterioration of the surface and controlled reheating of the component can usually rectify the defect. During the reheating process the saponified moisture effectively boils out of the powder coated surface.

If you believe you have a blanching issue, please contact us for additional advice on the most suitable remedial action.

There is evidence that the occurrence of blanching can be reduced by using perforated packaging and importantly components should be stored in cool, dry conditions and out of direct sunlight whilst wrapped or packed. Any protective film should be removed once systems are installed to prevent rain and sunlight exposure potentially causing the blanching phenomenon. We would suggest alerting your customers to this phenomenon so that preventative action can be taken.

10. Technical Data Sheets

10.1. Interpon D Product Data Sheets

Interpon D Product Data Sheets maybe updated at any time without notice. All up to date Interpon Product Data Sheets can be accessed using the following web link https://shop.interpon.com/gb/en/

Interpon D1036 Gloss

Interpon D1036 Satin

Interpon D1036 Matt

Interpon D1036 Textura

Interpon D2525 Gloss

Interpon D2525 Satin

Interpon D2525 Matt

Interpon D2525 Sable

Interpon D2525 Structura

Interpon D2525 Brilliance

11. Appendix 1: Laboratory Testing for Approval of Coaters

It is compulsory to use the respective Interpon Brand on all tested pieces for each approval request. On renewal of D3000, use of D2525 is allowed with test requirements of D3000. Tested pieces using powders from competition is NOT allowed. A hierarchy principle applies: Approval for Interpon D3000 series implies approval for Interpon D2000 series, which in turn implies approval for Interpon D1000 series, however the reverse does not apply. Testing requirements required for Interpon D1000, D2000 and D3000 series are summarized in the below table.

Laboratory Testing Requirements for Interpon D Ranges

	Interpon D1000 Standard Range	**Interpon D2000 Superdurable Range**	**Interpon D3000 Hyperdurable Range**
Brands	Interpon D1036	Interpon D2525 Interpon D2015	Interpon D3020
Stage 1	Inspection • Pre-treatment Line • Application Line • Oven • Quality Management System • QC facilities/equipment	Success in Part 1 approval Established architectural track record	Success in Part 1 approval Established architectural track record
Stage 2	Testing by Akzo Nobel • Appearance • Colour • Gloss • Cure • Adhesion • Pre-treatment (Pressure cooker or boiling water) • AASS – 1000hrs • Humidity – 1000hrs	Testing by Akzo Nobel • Appearance • Colour • Gloss • Cure • Adhesion • Pre-treatment (Pressure cooker or boiling water) • AASS – 1000hrs • Humidity – 1000hrs	Testing by Akzo Nobel • Appearance • Colour • Gloss • Cure • Adhesion • Pre-treatment (Pressure cooker or boiling water) • AASS – 2000hrs • Humidity – 2000hrs
Stage 3	For approval – Three (3) consecutive pass results	For approval - Six (6) consecutive pass results Full audit of Process Controls and Quality Management system by Akzo Nobel Powder Coatings	

AkzoNobel Powder Coatings

IMPORTANT NOTE: The information in this guidance note is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using an AkzoNobel product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for AkzoNobel products if available. All advice we give, or any statement made about our product by us (whether in this guidance note or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this guidance note is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this guidance note is current prior to using the product. Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel.

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