



# Technical Information

**Metwood can be applied to aluminium panels & extrusions. It can be used on a wide variety of products both internally and externally as it is durable, virtually maintenance free, flexible and consistent.**

Used on aluminium, Metwood also provides environmental benefits, is lightweight, non-warping, impact & scratch resistant, and it can also be used to overcome fire rating and structural issues.

**Process: Metwood is a two stage process. Stage one involves powder coating; stage two is sublimation.**

## Stage One

**MetWood Powder Coating Pre-Treatment process is a 5 step process:**

- 1 **Etch:** to remove oxidation and etch the surface for coating (Bonderite C-IC 1509ALX)
- 2 **Rinse:** using partially de-ionised water <250µs/cm
- 3 **Rinse:** di-ionised water <50µs/cm
- 4 **Corrosion Protection:** using chromate for corrosion protection of aluminium (Bonderite M-CR12R20L).
- 5 **Final Rinse:** di-ionised water using <50µs/cm

### Metwood Powder Coating

Powder coatings offer not only a cost effective but environmentally sustainable option to alternatives

- ✓ No Volatile Organic Compounds (VOC's) produced
- ✓ Low emissions

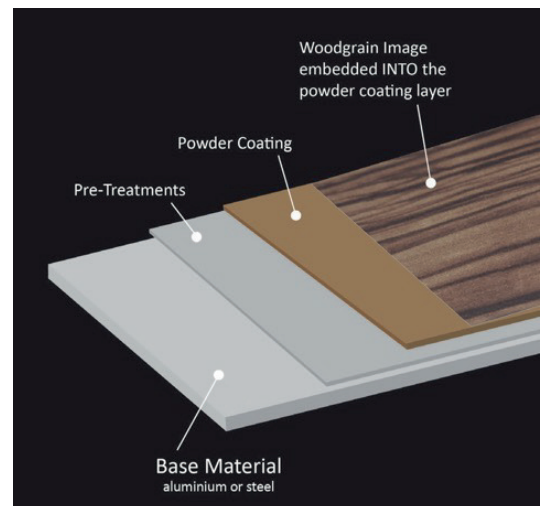
## Stage Two

MetWood STF Films offer durability with long-lasting results and full respect for the environment. They are made of polyethylene terephthalate (PET) which has one of the best ratios of performance/price/recyclability performance.

While the sublimation inks used are not engineered to be biodegradable, they are made of organic components, free of heavy and dangerous metals and any other dangerous/hazardous/toxic substances.

**Sublimation Transfer Films (STF) Process:**

- 1 a photographic image is printed onto a film
- 2 the film is wrapped around the powder coated item
- 3 a vacuum is applied to create pressure
- 4 in a high temperature oven the pressure and heat lift the image from the film, and transfers it INTO the powder coating layer (a process called sublimation).





# Technical Information

## Aluminium

### Properties

“While (construction & demolition) waste is actually created by contractors on site, the decisions made by designers have a major influence on the type and amount of waste.”

- [branz.co.nz](http://branz.co.nz)

### Abundant and infinitely recyclable.

With rainforests being destroyed at an unprecedented rate, and sustainably sourced timbers becoming increasingly scarce and costly, choosing a material with sustainability as well as price in mind, is ever more critical.

“Aluminium is a light, strong, flexible, non-corrosive and infinitely recyclable metal. Metals are some of the most recyclable materials in common use today, with aluminium having one of the highest recycling rates of any metal, and being 100% recyclable it has a minimal environmental footprint.”

- [nzas.co.nz](http://nzas.co.nz)

“Aluminium is the most abundant element in the earth’s crust. Approximately 75% of aluminium ever produced is still in use today as it can be recycled endlessly without compromising any of its unique properties or quality. Aluminium’s lifecycle provides significant benefits through recycling, saving 95% of the energy it would take to make new aluminium metal.”

- [aluminium.org.au](http://aluminium.org.au)

### Lightweight

With a density around 1/3 that of steel, and a weight around 50% less than wood, aluminium is light. This means low transport costs and easy installation and handling, with no compromise to structural integrity in all environmental conditions.

### Insect Resistant

Aluminium is impervious to insects. It therefore eliminates any need for chemical insect repellants/killers.

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## Fire Rating Performance

Metwood has obtained the highest fire ratings achievable from Branz, allowing a timber appearance to be possible in situations where real wood may not be permitted.

### Metwood has obtained:

- ✔ Type A rating for external use
- ✔ Group Number 1 -S rating for internal use



# Metwood Warranty

## 25 years powder coating / 10 years pattern

### MetWood is backed by two warranties.

A 25 year warranty on the underlying powder coating from Interpon, which covers all of our finishes.

A 10 year warranty on the pattern from Memphis, which covers those finishes suitable for external use.

Other finishes are recommended for internal use only.

### 25 Year Interpon Warranty

- ✓ The coating technologies used in the Interpon D STF range of products meet globally recognized AAMA 2604 standards.
- ✓ Interpon's approvals have been specifically achieved with the use of sublimation films manufactured by Memphis.
- ✓ The Interpon D STF range of products is supported by a 25 year performance warranty on the powder coating.
- ✓ The warranty covers product performance with regards to film integrity, colour retention (basecoat only), chalking, gloss retention and adhesion.
- ✓ Full terms and conditions are outlined in the attached documentation.

### 10 Year Memphis Warranty

- ✓ The sublimation transfer technologies used in Memphis's sublimation transfer films meet globally recognized AAMA 2604 and Qualideco standards.
- ✓ Memphis sublimation transfer films are supported by a 10 year performance warranty for external use when applied to Interpon D STF powders. The Memphis warranty covers only certain combinations of films and powder. Other combinations are recommended for internal use only.
- ✓ The warranty covers product performance with regards to colour retention, or not fading in an 'unnatural way' so as to significantly adversely affect the appearance.
- ✓ Full terms and conditions are outlined in the attached documentation.





# Product Data Sheet

## AkzoNobel Powder Coatings

### Interpon D2525 STF

#### Product Description

**Interpon D2525 STF** is a series of advanced durability powder coatings specifically formulated to meet AAMA2604 and to act as a basis for the heat-transfer decoration process (Sublimation Transfer Film) on architectural aluminium extrusions and components. **Interpon D2525 STF** powder coatings are available in a selected range of textured matt colours including popular wood tones.

**Interpon D2525 STF** used in combination with the sublimation transfer process offers an excellent alternative to wood or other materials, reproducing their appearance but without many of their specific architectural restrictions.

#### Powder Properties\*

<b>Chemical type</b>	Polyester
<b>Particle size</b>	Suitable for electrostatic spray
<b>Specific gravity</b>	1.2 - 1.7 depending on colours
<b>Storage</b>	Dry cool conditions (below 30°C)
<b>Shelf Life</b>	18 months
<b>Sales code</b>	Y-Series
<b>Stoving Schedule</b>	8 mins at 190°C (Object temperature) 5 mins at 200°C 4 mins at 210°C

#### Film properties

Mechanical and chemical tests carried out on Chromated aluminium panels. All tests are performed on panels coated with 60 to 80 microns of a gloss finish powder coating stoved for 10 minutes at 200°C (metal temperature). Interpon D2525 STF powder coatings are designed to meet the requirements of AAMA2604.

#### Mechanical Tests\*

<b>Dry Adhesion</b>	AAMA2604 Clause 7.4	Pass - no removal of film
<b>Impact resistance</b>	AAMA2604 Clause 7.5	Pass - no tape removal of film from substrate following 0.1" deformation
<b>Dry Film hardness</b>	ISO2815 (Buchholz)	Pass
<b>Abrasion resistance</b>	AAMA2604 Clause 7.6	Pass - abrasion co-efficient > 20

#### Chemical Durability Tests\*

<b>Salt Spray</b>	AAMA2604 Clause 7.8.2 ASTM B117 at 35°C D1654	Pass at 3000 hrs - no corrosion more than 1.0-2.0 mm from scribe Minimum blister rating 8
<b>Constant Humidity Resistance</b>	AAMA2604 Clause 7.8.1 ASTM D2247, ASTM D714	Pass at 3000 hrs – blister formation less than "few" size no 8.
<b>Permeability</b>	AS3715 Section 2.5.11	Pass
<b>Sulphur Dioxide</b>	ISO3231 (Kesternich)	Pass - no blistering, loss of gloss or discolouration.
<b>Chemical Resistance</b>	Generally good resistance to acids, alkalis and oils at normal temperatures	
<b>Exterior durability</b>	5 years Florida exposure AAMA 2604	Excellent performance, Colour change Delta E less than 5, gloss retention >30%. Chalking –none in excess of no.8 ASTM D4214 - D659.
<b>Colour stability at elevated temperatures</b>	Excellent for continuous exposure up to 120°C.	

#### Pre-treatment

For optimum coating performance the following pre-treatment is recommended prior to the application of **Interpon D2525 STF**. The pre-treatment should be used in accordance with the supplier's recommendations.

A. Aluminium	Multistage chrome chromate, chrome phosphate or chrome <sup>6</sup> -free
B. Galvanised Steel	Multistage zinc phosphate or chromate
C. Steel	Multistage zinc or iron phosphate

## Interpon D2525 STF

### Application

**Interpon D2525 STF** powder coatings can be applied by manual or automatic electrostatic spray equipment. Unused or over-sprayed powder coating can be reclaimed and recycled through the coating system.

**Interpon D2525 STF** powder coatings have a low pigment loading and are therefore semi-transparent. The appearance of the coating (especially colour) can vary with film thickness, substrate type and pre-treatment. 80-100µm film thickness is recommended to achieve a balance of colour consistency and finished appearance. Due to the high resin content **Interpon D2525 STF** powder coatings can be difficult to apply in high humidity situations. Optimal application conditions are achieved when relative humidity is less than 80%.

### Additional Information

Product performance warranties are available with the Interpon D2525 range through accredited applicators. For further information on the available warranties and the applicable terms and conditions, please contact your local AkzoNobel sales office.

AkzoNobel Pty Limited has a policy not to use lead or other heavy metal based pigments in our range of powder coatings. As a result of this policy, the use of bright and deep colours such as Yellows, Oranges and Reds are not recommended for severe outdoor exposure where long-term colour fastness is required. These products can be sourced from the Interpon TC General Industrial range.

Interpon D2525 STF powder coatings as supplied by AkzoNobel contain no organic solvents and can contribute toward satisfying the IEQ credits in the following Green Star® rating tools:

IEQ11 Office Interiors v1.1	IEQ8 Education v1
IEQ13 Office Design v2	IEQ8 Retail Centre v1
IEQ13 Office As-Built v2	IEQ8 Healthcare v1
IEQ8 Multi Unit Residential v1	IEQ8 Industrial v1



green building council australia  
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Note: Products are not reviewed or certified under the Green Star® rating system. Green Star® credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information on Green Star®, visit [www.gbca.org.au](http://www.gbca.org.au).

### Safety Precautions

**This product is intended for use only by professional applicators in industrial environments and should not be used without reference to the relevant health and safety data sheet, which AkzoNobel has provided to its customer. If for any reason a copy of the relevant health and safety data sheet is not immediately available the user should contact AkzoNobel to obtain a copy before using the product. Minimum safety precautions in dealing with all powder coatings are as follows. All dusts are respiratory irritants. Therefore, inhalation of the dust or of the vapors resulting from the cure should be avoided. Take steps to prevent skin contact, but should contact occur, wash skin with soap and water. In case of eye contact flush immediately with clean water and seek medical advice. Dust clouds of any finely divided organic material can be ignited with an electric spark or open flame. Dust and powder should not be allowed to build up on surfaces or ledges. Dust collection equipment should be used which has provision for adequate explosion release. All equipment should be electrically earthed to prevent build up of static. Users are recommended to follow the guidelines laid down in AS3754:1990, "Safe Application of Powder Coatings by Electrostatic Spraying".**

### Disclaimer

**IMPORTANT NOTE:** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the 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 fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet 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 advices 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 data sheet 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 data sheet is current prior to using the product.

Unless otherwise agreed by us in writing, any contract to purchase products referred to in this brochure and any advice which we give in connection with the supply of products are subject to our standard conditions of sale. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

\* Typical minimum specifications. Performance may vary slightly between individual products.

Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel.

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**Interpon®**

## Interpon Warranty Terms

### Clause 1: Warranty (on the building)

#### 1.1 Film Integrity

During the Warranty Period there will be no visible checking or cracking of the specified Interpon D2525 STF powder coating.

#### 1.2 Color Integrity

##### 1.2.1 Color Retention

Interpon D2525 STF powder coating (**base coating only**) when applied to test panels be less than or equal to 5 (five) CIELAB E units when exposed in accordance with Clause 7.9.1.1 of AAMA2604-10 and when measured in accordance with Clause 7.9.1.4 of AAMA2604-10. (please refer to Note 1). During the Warranty Period any change in color which may occur to the specified Interpon D2525 STF powder coating will occur evenly over any compatible surface provided that such surfaces are exposed to an even degree of weathering.

**Note 1:** DE Units (Hunterlab) determines color change and is calculated in accordance with ASTM D2244, Section 6.3. Color change shall be measured across representative exposed powder coated surfaces that have been cleaned of oil, grease, dirt, chalk, oxidised film or other contaminants. Corresponding values shall be measured on the original retained batch panel (which has been stored in the dark at temperatures below 30 Degrees Celsius).

##### 1.2.2 Chalking Resistance

Interpon D2525 STF powder coating when applied to test panels will be no more than that represented by a No. 6 rating based on ASTM D 4214, test method A (Method D 659) when exposed in accordance with Clause 7.9.1.1 of AAMA2604-10 and when measured in accordance with Clause 7.9.1.4 of AAMA2604-10.

During the Warranty Period any chalking which may occur to the specified Interpon D2525 STF powder coating will occur evenly over any compatible surface provided that such surfaces are exposed to an even degree of weathering.

### Clause 2 (Warranty on test panels)

#### 2.1 Gloss Retention

The gloss retention of the specified Interpon D2525 STF powder coating when applied to test panels shall be greater than or equal to 30% when exposed in accordance with Clause 7.9.1.1 of AAMA2604-10 and when measured in accordance with Clause 7.9.1.4 of AAMA2604-05.

During the Warranty Period any reduction in gloss which may occur to the specified Interpon D2525 STF powder coating will occur evenly over any compatible surface provided that such surfaces are exposed to an even degree of weathering.

#### 2.2 Adhesion

The adhesion of the specified Interpon D2525 STF powder coating, when initially applied to test panels and when exposed in accordance with AAMA2604-10 Clause 7.4.1.1 will show no removal of the film.

### Clause 3: Terms and Conditions of the Warranty

**3.1** The "Warranty Period" shall mean a period of fifteen (25) years commencing on the date that the specified Interpon D2525 STF powder coating and batch number(s) as detailed on this Warranty Card is/are used by the Applicator or alternatively six (6) months from the date of the delivery of the specified Interpon D2525 STF powder coating to the Applicator, whichever is the sooner.

**3.2** The performance criteria referred to in Clauses 1 and 2 of this Warranty are strictly conditional upon the specified Interpon D2525 STF powder coating being applied to aluminium alloys, as specified in the Interpon D Approved Applicators Manual, in accordance with the instructions contained on the relevant product data sheet and the relevant DIN, ISO, AAMA or AkzoNobel's coating standards (as the case may be). It is understood that gloss, chalk and color 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 the entire obligation of AkzoNobel shall be limited to the provision of replacement coating material and the payment of application costs as deemed necessary by AkzoNobel to repair the failure in-situ PROVIDED THAT AkzoNobel shall not be liable:

- i) 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, no later than fifteen (15) years commencing on the sooner of the date that the specified Interpon D2525 STF powder coating is used by the Applicator or six (6) months from the date of its delivery to the Applicator;
- ii) unless a valid claim can be established under this Warranty such that the Applicator can establish to the satisfaction of AkzoNobel that 5% or more of the total coated area to which the specified Interpon D2525 STF 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 STF powder coating;
- iii) 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 Applicators Manual supplied to the Applicator, of which the Applicator hereby acknowledges receipt ("The Applicator Requirements");
- iv) under any circumstances for any claim, whether

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

- v) if any of the circumstances set out in clauses 3.3 and 3.4 apply;
- vi) unless the Applicator shall prove to the reasonable satisfaction of AkzoNobel that the specified Interpon D2525 STF powder coating, as applied, has failed to meet the performance criteria referred to in Clauses 1 and 2.

Notwithstanding any other terms of this Warranty, any liability of AkzoNobel is conditional upon the strict adherence of the pre-treatment and application procedures set out in the requirements of the Interpon D Approved Applicator Manual. AkzoNobel specifically excludes any liability for any failure of the coating arising out of the Applicator's or the Customers failure to comply with any of these obligations 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.

Any repairs under this Warranty may only be carried out by AkzoNobel or, after consultation with AkzoNobel, by an Applicator approved in writing by AkzoNobel. Should any rectification of the specified Interpon D2010 STF powder coating be required it is a condition of this warranty that the Applicator obtain two written quotations for the repair and submit them to AkzoNobel for approval. AkzoNobel reserves the right to reject any or all quotations submitted for the rectification of any potential claim and may obtain an alternative quotation to cover any agreed repairs.

**3.4** In addition to Clause 3.3, AkzoNobel shall not be liable under this Warranty in the event that any one or more of the following circumstances occur:

- i) any damage to or deterioration of the coating system arising from causes beyond the control of AkzoNobel including but not limited to impact, abrasion, mechanical damage, neglect, malicious damage, fire damage, pollution and abnormal weather conditions;
- ii) where the surfaces have been re-coated or touched up for one reason or another, or where more than one coat of Interpon D2525 STF has been applied to any surface, or where any surface has been stripped and re-coated with Interpon D2525 STF without the prior written agreement of AkzoNobel;
- iii) where failure is associated with the sawing of, or the drilling, milling or punching holes in the coated surface, which are not then adequately sealed with a suitable sealant or mastic;
- iv) where the failure is associated with post forming or other post fabrication processes such as application of decorative films, e.g. sublimation transfer;
- v) where failure is associated with prolonged exposure of the coatings to temperatures in excess of 70 Degrees Celsius, or to acid, alkali, solvent or any other hazardous sources which are known or believed to be damaging to powder coatings;
- vi) where failure is associated with continuous exposure of the coating to the direct influence of salt water unless prior to the application of the coatings, AkzoNobel has confirmed its agreement in writing to the Applicator to Warrant the coating as applied to the property in a specified location;
- vii) where failure is associated with the use of adhesive tapes, or with the use of sealants or mastics;
- viii) where failure is associated with jig marks or other fixing points;
- ix) where the coated surfaces have not been maintained by the Applicator or third party in accordance with AkzoNobel's recommended maintenance procedures as stipulated in the Interpon Powder Coatings Care and Maintenance Brochure (a copy of which is attached and which the Applicator hereby acknowledges he has read and understood) together with other appropriate literature available from AkzoNobel;
- x) damage or deterioration caused by any accident or normal wear and tear, or by any default or misuse of the specified Interpon D2525 STF powder coating by the Applicator, Customer or by any third party;
- xi) where the specified Interpon D2525 STF powder coating has not been stored in accordance with the product data sheet recommendations i.e. in dry, cool conditions below 30 Degrees Celsius;
- xii) any claim arising out of the use of the specified Interpon D2525 STF powder coating with equipment or materials not set out in the published product literature of AkzoNobel or that could be reasonably contemplated by AkzoNobel;
- xiii) any claim arising out of any alteration, modification or repair by a third party not expressly approved in writing by AkzoNobel; or
- xiv) any claim arising out of the specified Interpon D2525 STF powder coating or the items to which it is applied having been subjected to experimental operation or any type of operation or use in contravention of the specification or operational limitations.

**3.5** The Applicator shall maintain (and procure that its customer maintains) the following records for the project and, in the event of a claim, the Applicator shall make

such records available to AkzoNobel or its nominee, servant or agent for inspection and/or to make copies thereof:

- plant pre-treatment records;
- plant oven temperature records;
- full application records and quality control records for each production run of the project;
- maintenance records including details of washing and cleaning procedures; and
- any other data needed to construct the chronological service history of the coating system.

In addition the Applicator shall permit (and procure that its customer permits) AkzoNobel or its nominee, servant or agent, should AkzoNobel so request, to inspect the property to which the Interpon D2525 STF has been applied.

**3.6** If AkzoNobel carries out any testing of the Applicator's procedures or operations or makes any recommendations, suggestions or advice in respect thereof or provides the Applicator or the Customers, its employees, agents or contractors with technical advice relating to the use or application of Interpon D2525 STF powder coatings (regardless of any approval given by AkzoNobel that the Applicator be an Interpon D Approved Applicator or otherwise and including without limitation the matters set out in the Interpon D Approved Applicators Manual) or the use of any equipment to be used in connection therewith or otherwise (hereinafter referred to as "Services"), all reasonable efforts have been taken to secure that any Services so provided are accurate and useful and that AkzoNobel gives no representation, warranty or undertaking to the accuracy, completeness, usefulness, suitability, effect or otherwise of the Services or the quality or condition of such equipment or otherwise and, AkzoNobel shall not be liable in respect of any act, omission, deficiency, neglect or otherwise in the provision of any Services or any other matter associated therewith.

**3.7** The Applicator agrees that it will at all times hereafter 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 the specified Interpon D2525 STF powder coating, the coating system, its application, repair or replacement under this Warranty, or by, or as a result of the provision of any Services, as that is defined in Clause 3.6 above.

**3.8** Notwithstanding anything to the contrary in this Warranty, nothing in this Warranty shall exclude, restrict, or limit the liability of AkzoNobel for death or personal injury resulting from the negligence of AkzoNobel or affect the statutory rights of the Applicator.

**3.9** This Warranty sets out the entire liability of AkzoNobel for any fault or claim arising out of or in connection with the quality or condition of all Interpon D2525 STF powder coatings supplied to the Applicator (including but not limited to the merchantable quality and fitness for purpose of Interpon D2525 STF powder coatings). All warranties, representations, conditions and terms, (whether express or implied, written or oral) as to any such matters are hereby expressly excluded to the fullest extent permitted by law and for the avoidance of doubt the warranty contained in Clause 6 of AkzoNobel's Conditions of Sale (a copy of which is attached and which the Applicator hereby acknowledges he has read and understood) is expressly superseded by this Warranty).

**3.10** Any alterations to or modifications of this Warranty must be in writing and signed by authorised representatives of the Applicator and AkzoNobel.

**3.11** This Warranty is granted to the Applicator alone as the purchaser of the specified Interpon D2525 STF powder coating and is nontransferable and non-assignable in whole or in part. The Applicator shall not itself or permit its agents, representatives or contractors to represent or imply that this Warranty extends to or is available to anyone other than the Applicator. The Applicator cannot make any representations or provide any advice in relation to any products on behalf of AkzoNobel.

**3.12** All communications relating to this Warranty shall be in writing and deemed duly served:

- a) three (3) days after it has been sent by prepaid registered post addressed to the address of the party concerned as stated herein or the last known addresses of the parties hereto; or
- b) immediately upon receipt if delivered by hand or properly sent by email or facsimile transmission.

**3.13** All correspondence in relation to this Warranty must be addressed to: **The Marketing Manager Interpon Powder Coatings PO Box 26, Sunshine North VIC Australia 3020**

**3.14** This Warranty represents the entire agreement between the parties hereto in relation to the subject matter and supersedes any previous agreement whether written or orally expressed or implied between the parties hereto in relation to the subject matter.

**3.15** This Warranty shall be construed in accordance with the laws of New South Wales and the parties hereto irrevocably submit to the non-exclusive jurisdiction of the New South Wales courts to settle any disputes which may arise in connection with this Warranty.

**3.16** The schedule annexed hereto shall be read, construed and taken to be an essential part of the Warranty and shall form an integral part hereof.

Clause 1: Warranty (on the building)

1.0 Color Retention

**Memphis Sublimation Films** when applied to test panels be less than or equal to 10 (ten) CIELAB DELTA E units, measured with a Spectrophotometer such as X-rite or equivalent quality instruments, or, regardless of the extent of colour change, it won't change in an 'unnatural way' so as to significantly adversely affect the appearance of the surface to which the product has been applied.

During the Warranty Period any change in color which may occur to the specified Memphis Sublimation Film will occur evenly over any compatible surface provided that such surfaces are exposed to an even degree of weathering.

**Note 1:** DELTA E Units determine color change and shall be measured across representative exposed powder coated surfaces that have been cleaned of oil, grease, dirt, chalk, oxidised film or other contaminants. Corresponding values shall be measured on the original retained batch panel (which has been stored in the dark at temperatures below 30 Degrees Celsius).

Clause 2: Terms and Conditions of the Warranty

**2.1** The "Warranty Period" shall mean a period of Ten (10) years commencing on the date that the specified Memphis Sublimation Film as detailed on this Warranty Card is/are used by the Applicator or alternatively twelve (12) months from the date of the delivery of the specified Memphis Sublimation Film to the Applicator, whichever is the sooner.

**2.2** The performance criteria referred to in Clauses 1 of this Warranty are strictly conditional upon the specified Memphis Sublimation Film being applied to Interpon D2525 STF powder coating to aluminium alloys, to the standards specified in the Interpon D Approved Applicators Manual, in accordance with the instructions contained on the relevant product data sheet and the relevant DIN, ISO, AAMA or AkzoNobel's coating standards (as the case may be).

**2.3** In the event of a valid claim the entire obligation of Memphis, shall be limited to the provision of replacement sublimation film and the payment of sublimation costs as deemed necessary by Memphis or a cash equivalent up to a maximum of the value of the invoice for the effected work, but that in any event cannot exceed 10x the value of the actual film supplied by Memphis that is used in the job. **PROVIDED THAT** Memphis shall not be liable:

- i) unless written notice is given to Memphis by the Applicator within thirty (30) days after the date of detection of the matter giving rise to the claim and, in any event, no later than Ten (10) years commencing on the sooner of the date that the specified Memphis Sublimation Film is used by the Applicator or twelve (12) months from the date of its delivery to the Applicator;
- ii) any costs of removal, reinstallation or transportation of material to or from site.
- iii) unless a valid claim can be established under this Warranty such that the Applicator can establish to the satisfaction of Memphis that 5% or more of the total coated area to which the specified Memphis Sublimation Film has been applied failed to meet the performance criteria referred to in Clause 1 as a result of an error or defect in the formulation or manufacture of the specified Memphis Sublimation Film ;
- iv) 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 Applicators Manual supplied to the Applicator;
- v) under any circumstances for any claim, whether arising in contract, tort (including negligence) or otherwise for any consequential economic or other indirect damage, loss and expense including loss of profits, income, contracts, business, production or goodwill for any claims made against the Applicator by third parties;
- vi) if any of the circumstances set out in clauses 2.3 and 2.4 apply; and / or
- vii) unless the Applicator shall prove to the reasonable satisfaction of Memphis that the specified **Memphis Sublimation Film**, as applied, has failed to meet the performance criteria referred to in Clauses 1.

Notwithstanding any other terms of this Warranty, any liability of Memphis, is conditional upon the strict adherence of the pre-treatment and application procedures set out in the requirements of the Interpon D Approved Applicator Manual. Memphis specifically excludes any liability for any failure of the coating arising out of the Applicator's or the

customers failure to comply with any of these obligations 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.

Any repairs under this Warranty may only be carried out by Memphis or, after consultation with Memphis, by an Applicator approved in writing by Memphis. Should any rectification of the specified Memphis Sublimation Film be required it is a condition of this warranty that the Applicator obtain two written quotations for the repair and submit them to Memphis for approval. Memphis reserves the right to reject any or all quotations submitted for the rectification of any potential claim and may obtain an alternative quotation to cover any agreed repairs.

**2.4** In addition to Clause 2.3, Memphis S.p.a. shall not be liable under this Warranty in the event that any one or more of the following circumstances occur:

- i) any damage to or deterioration of the coating system arising from causes beyond the control of Memphis including but not limited to impact, abrasion, mechanical damage, neglect, malicious damage, fire damage, pollution and abnormal weather conditions;
- ii) where the surfaces have been re-coated or touched up for one reason or another, or where more than one coat of Memphis Sublimation Film or Interpon D2525 STF has been applied to any surface, or where any surface has been stripped and re-coated with Memphis or Interpon D2525 STF without the prior written agreement of Memphis;
- iii) where failure is associated with the sawing of, or the drilling, milling or punching holes in the coated surface, which are not then adequately sealed with a suitable sealant or mastic;
- iv) where the failure is associated with post forming or other post fabrication processes that have adversely impacted or damaged the basecoat or sublimation film;
- v) where failure is associated with prolonged exposure of the coatings to temperatures in excess of 70 Degrees Celsius, or to acid, alkali, solvent or any other hazardous sources which are known or believed to be damaging to powder coatings and /or sublimation films;
- vi) where failure is associated with continuous exposure of the coating to the direct influence of salt water unless prior to the application of the coatings, Memphis has confirmed its agreement in writing to the Applicator to Warrant the coating as applied to the property in a specified location;
- vii) where failure is associated with the use of adhesive tapes, or with the use of sealants or mastics;
- viii) where failure is associated with jig marks or other fixing points;
- ix) where the coated surfaces have not been maintained by the Applicator or third party in accordance with Memphis's recommended maintenance procedures as stipulated in the Memphis Care and Maintenance Brochure (a copy of which is attached and which the Applicator hereby acknowledges he has read and understood);
- x) damage or deterioration caused by any accident or normal wear and tear, or by any default or misuse of the specified Memphis Sublimation Film by the Applicator, Customer or by any third party;
- xi) where the specified Memphis Sublimation Film has not been stored in accordance with the product data sheet recommendations ;
- xii) any claim arising out of the use of the specified Memphis Sublimation Film with equipment or materials not set out in the published product literature of Memphis or that could be reasonably contemplated by Memphis;
- xiii) any claim arising out of any alteration, modification or repair by a third party not expressly approved in writing by Memphis; or
- xiv) any claim arising out of the specified Memphis Sublimation Film or the items to which it is applied having been subjected to experimental operation or any type of operation or use in contravention of the specification or operational limitations.
- xv) any part of the legal title of the property is within 25m from the mean high tide mark, or within [25m] from a geothermal source**

**2.5** The Applicator shall maintain (and procure that its customer maintains) the following records for the project and, in the event of a claim, the Applicator shall make such records available to Memphis or its nominee, servant or agent for inspection and/or to make copies thereof:

- plant pre-treatment records;
- plant oven temperature records;
- full application records and quality control

- records for each production run of the project;
- maintenance records including details of washing and cleaning procedures; and
- any other data needed to construct the chronological service history of the coating system.

In addition, the Applicator shall permit (and procure that its customer permits) Memphis, or its nominee, servant or agent, should Memphis so request, to inspect the property to which the Memphis Sublimation Film has been applied.

**2.6** If Memphis carries out any testing of the Applicator's procedures or operations or makes any recommendations, suggestions or advice in respect thereof or provides the Applicator or the Customers, its employees, agents or contractors with technical advice relating to the use or application of **Memphis Sublimation Film** or the use of any equipment to be used in connection therewith or otherwise (hereinafter referred to as "Services"), all reasonable efforts have been taken to secure that any Services so provided are accurate and useful and that Memphis, gives no representation, warranty or undertaking to the accuracy, completeness, usefulness, suitability, effect or otherwise of the Services or the quality or condition of such equipment or otherwise and, Memphis shall not be liable in respect of any act, omission, deficiency, neglect or otherwise in the provision of any Services or any other matter associated therewith.

**2.7** The Applicator agrees that it will at all times hereafter hold harmless Memphis against all third-party claims for loss, damage, or expenses brought against Memphis, of whatsoever nature and howsoever arising caused by or related to the specified Memphis Sublimation Film, its application, repair or replacement under this Warranty, or by, or as a result of the provision of any Services, as that is defined in Clause 2.6 above.

**2.8** Notwithstanding anything to the contrary in this Warranty, nothing in this Warranty shall exclude, restrict, or limit the liability of Memphis for death or personal injury resulting from the negligence of Memphis or affect the statutory rights of the Applicator.

**2.9** This Warranty sets out the entire liability of Memphis for any fault or claim arising out of or in connection with the quality or condition of all Memphis Sublimation Film supplied to the Applicator (including but not limited to the merchantable quality and fitness for purpose of Memphis Sublimation Films). All warranties, representations, conditions and terms, (whether express or implied, written or oral) as to any such matters are hereby expressly excluded to the fullest extent permitted by law

**2.10** Any alterations to or modifications of this Warranty must be in writing and signed by authorised representatives of the Applicator and Memphis.

**2.11** This Warranty is granted to the Applicator alone as the purchaser of the specified Memphis Sublimation Film and is nontransferable and non-assignable in whole or in part. The Applicator shall not itself or permit its agents, representatives or contractors to represent or imply that this Warranty extends to or is available to anyone other than the Applicator. The Applicator cannot make any representations or provide any advice in relation to any products on behalf of Memphis.

**2.12** All communications relating to this Warranty shall be in writing and deemed duly served:

- a) seven (7) days after it has been sent by prepaid registered airmail addressed to the address of the party concerned as stated herein or the last known addresses of the parties hereto; or
- b) immediately upon receipt if delivered by hand or properly sent by email or facsimile transmission.

**2.13** All correspondence in relation to this Warranty must be addressed to: **Marco Menin, Memphis S.p.a.**

**2.14** This Warranty represents the entire agreement between the parties hereto in relation to the subject matter and supersedes any previous agreement whether written or orally expressed or implied between the parties hereto in relation to the subject matter.

**2.15** This Warranty shall be construed in accordance with the laws of New Zealand and the parties hereto irrevocably submit to the non-exclusive jurisdiction of the New Zealand courts to settle any disputes which may arise in connection with this Warranty.

**2.16** The schedule annexed hereto shall be read, construed and taken to be an essential part of the Warranty and shall form an integral part hereof.

# FH16947-01-1-C1

## GROUP NUMBER CLASSIFICATION



This is to certify that the specimens described below were tested in accordance with ISO 5660 by BRANZ for determination of Group Number classification.

### Test Sponsor

Powder Coating Group NZ Limited  
643 Great South Road  
Auckland, 1061  
New Zealand

### Date of tests

22<sup>nd</sup> February 2023

### Reference BRANZ Test Report

FH16947-01-1 – 31 March 2023

**Test specimens as described by the client:** Metwood sublimated finish on aluminium.

Product ID (Colour)	Specimen ID	Mass (g)	Thickness (mm)	Apparent Density (kg/m <sup>3</sup> )
Black	FH16947-3-50-1, 2, 3	66.6*	3.0*	2778*
Cream	FH16947-2-50-1	82.9	3.0	2763
Brown	FH16947-1-50-1	83.1	3.0	2770

Notes: \*mean values for replicate test samples.


Shaded rows – single indicative test specimen

### Group Number Classification in accordance with the New Zealand Building Code

The specimens were deemed suitable for testing and calculations carried out in accordance with NZBC Verification Method C/VM2 Appendix A. Classification for the sample as described above is given in the table below.

Building Code Document	Classification
NZBC Verification Method C/VM2 Appendix A	Group Number 1-S

### Issued by

  
L. Q. Greive  
Associate Fire Testing  
Engineer  
BRANZ

**Issue Date**  
31 March 2023

### Reviewed and authorised for release by

  
L. F. Hersche  
Fire Testing Engineer  
BRANZ

**Expiry Date**  
N/A

Regulatory authorities are advised to examine test reports before approving any product.



All tests and procedures reported herein, unless indicated, have been performed in accordance with the laboratory's scope of accreditation



# FH16947-03-1-C1 CLADDING PERFORMANCE



This is to certify that the specimen described below was tested by BRANZ  
in accordance with ISO 5660-1:2002

**Test Sponsor**  
Powder Coating Group NZ Limited  
643 Great South Road  
Auckland, 1061  
New Zealand

**Date of tests**  
22nd February, 23rd and 30th June, 11th  
August 2023

**Reference BRANZ Test Report**  
FH16947-03-1 – issued 24 August 2023

**Test specimens as described by the client:** Metwood sublimated finishes on aluminium substrate.

Product ID (Colour)	Specimen ID	Mass (g)	Thickness (mm)	Apparent Density (kg/m <sup>3</sup> )
Black	FH16947-4-50-1	80.3	3.1	2590
Light Brown	FH16947-2-50-1,2,3,4,5,6	82.5*	3.2*	2569*
Dark Brown	FH16947-1-50-1	83.1	3.0	2770

Notes: \*mean values for test samples.  
Shaded rows – indicative test specimen

**Performance in accordance with the New Zealand Building Code**

Calculations were carried out according to NZBC Verification Method C/VM2 Table 4.1. The performance for the samples as described above is given in the table below.

**Discussion**

The classification below is considered applicable to the entire colour range of Metwood sublimated finishes on aluminium substrate.

Building Code Document	Cladding Material Performance
NZBC Acceptable Solutions C/AS1 (2020) Table 5.1	< 100 kW/m <sup>2</sup> and, < 25 MJ/m <sup>2</sup>
NZBC Acceptable Solutions C/AS2 (2020) Table C1.3	Type A

**Issued by**

L. Q. Greive  
Associate Fire Testing  
Engineer  
BRANZ

**Reviewed and Approved  
for Release by**

L. F. Hersche  
Fire Testing Engineer  
BRANZ

Regulatory authorities are advised to examine test reports before approving any product.



**Issue Date**  
24 August 2023

All tests and procedures reported herein, unless indicated, have been performed in accordance with the laboratory's scope of accreditation