METWOOD®
WOODGRAIN & SPECIAL FINISHES

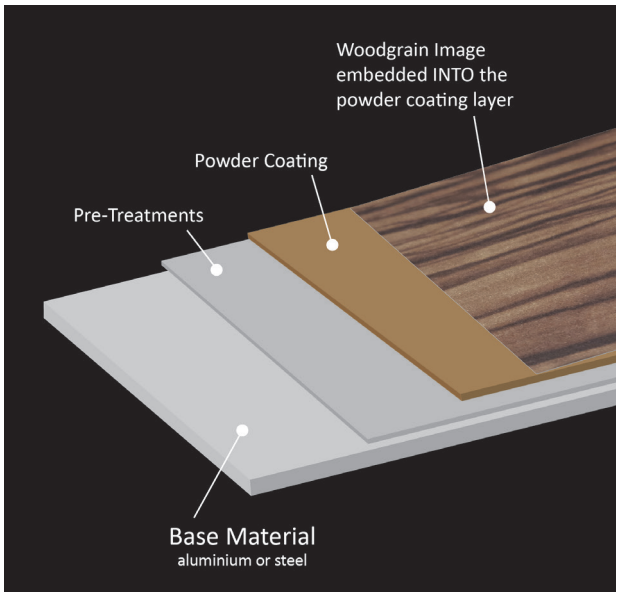
TECHNICAL INFORMATION

Overview:

Metwood can be applied to mild steel, coated steel & aluminium panels & extrusions.

It is:

- Lightweight
- Non-warping
- Impact & scratch resistant
- Virtually Maintenance free
- Stain & Fade resistant



Manufacturing Process:

- a photographic image is printed onto a film
- the film is wrapped around powder coated item
- a vacuum is applied to create pressure
- 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).

MetWood Pre-Treatments:

The MetWood pre-treatment process is an 8 stage process:

Initial Clean - using a degreaser to clean all grease deposits from the surface.
Cleaner Rinse - using de-ionised water <1000µs/cm.
Etch - to remove oxidation and etch the surface for coating.
Rinse - using de-ionised water <1000µs/cm.
Rinse - using de-ionised water <500µs/cm.
Corrosion Protection - using chromate for corrosion protection of aluminium.
Corrosion Protection Rinse - using <500µs/cm.
Final Rinse - using <80µs/cm.

MetWood Sublimation Transfer Films (STF):

MetWood STF Films offer durability with long-lasting results and full respect for the environment

MetWood STF Films 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.

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The properties of Aluminium:

While (consruction & 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.

(www.branz.co.nz)

Aluminium is abundant and infinately recyclable.
With rainforest 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 recycled and 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)**

"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)**

Aluminium is light.
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.

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

MetWood Powder Coating:

MetWood powder coating is backed by a 25year performance guarantee

Performance.
MetWood's Sublimation Transfer Film Powder Coatings exceeds globally recognised AAMA 2604 standards which set out the performance requirements with regards to gloss retention, colour uniformity, weathering durability, humidity resistance, impact resistance and chemical resistance and are suited perfectly for all residential and commercial applications.

25 Year Interpon D Warranty.
We can provide a 25 year warranty on the powder coating, backed by Interpon, the world leader in powder coatings.

AkzoNobel Powder Coatings

AkzoNobel

Product Data Sheet

AkzoNobel Powder Coatings
Interpon D2525 STF

Product Description

Interpon D2525 STF Matt and Texture is a range of powder coatings expressly formulated as a base for successive heat-transfer decoration. Smooth and fine structures are available.
Interpon D2525 STF Matt and Texture is a series of ultra-durable powder coatings specifically formulated without TGIC, intended for use on architectural aluminium and galvanized steel. Providing new levels of weathering resistance **Interpon D2525 STF Matt and Texture** surpasses the performance of leading architectural powders. It offers significantly higher gloss retention and resistance to colour change combined with maximum film integrity to ensure long term cosmetic and functional protection. These powder coatings are classified in Family I – class 6c under standard NFT 36-005.

Interpon D2525 STF Matt and Texture meets the requirements of Qualicoat Class 2, EN 12206 (formerly BS6496), EN13438 (formerly BS6497:1984) and AAMA 2604-13.
Some colours may not be available in Interpon D2525 STF Matt and Texture.
Following RAL shades are excluded from the RAL families for Qualicoat class 2: Ral 1003, 1012, 1018, 1028, 1033, 2004, 2011, 3015, 3017, 3018, 3020, 4001.

The exterior durability of the decorated coating film (powder coating base + paper/film) is highly dependent on the exterior durability of the decorating papers/films inks; and not only on the powder coating base. To make sure that the decorated coating film has a good exterior durability it is recommended to put the decorated coating film through homologation tests.

Qualicoat Licence number (Italy): P-1190 (Interpon D2525 Texture); P-1189 (Interpon D2525 Matt) Turkey P1260 (Interpon D2525 Matt)
Qualideco Licence Number (Italy): PS-002 Decorative films: Menphis/Colormenphis Film; Miroglio/Decotrans Alu; Decoral System/Heat Transfer film Decoral System.

Powder Properties

Chemical type	Polyester
Gloss (EN ISO 2813 (60°))	20-30 gloss units
Particle Size	Suitable for electrostatic spray
Specific gravity	1.2-1.9g/cm^3 depending on colour.
Storage	Dry, cool conditions (open boxes must be resealed)
Shelf life	24 months below 30°C peak temperature 12 months below 35°C peak temperature
Stoving schedule (object temperature)	15-30 minutes at 190°C 10-20 minutes at 200°C 8-16 minutes at 210°C

Test Conditions

The results shown below are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only. Actual product performance will depend upon the circumstances under which the product is used.

Substrate	Aluminum (0.5-0.8 mm Al Mg1)
Pretreatment	Chromate (DIN 50539)
Dry Film Thickness	60-80 microns (ISO 2360)
Stoving	10 minutes at 200° C (object temperature)

Mechanical Tests

Flexibility	ISO 1519 (cylindrical Mandrel)	Pass Qualicoat class 2 requirements
Adhesion	ISO 2409 (2mm Crosshatch)	Pass Gt0
Erichsen Cupping	ISO1520	Pass Qualicoat class 2 requirements
Impact resistance	ISSO 6272	Pass Qualicoat class 2 requirements
Hardness	ISO 2815	> 80

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Interpon D2525 STF

Chemical and Durability Tests

Acetic Acid Salt Spray	ISO 9227	<16 mm^2 corrosion/10cm (1000 hrs)
Constant Humidity	ISO 6270	No blistering, creep <1mm (1000 hrs)
Sulphur Dioxide	ISO 3231	Pass 30 cycles– no blistering, loss of gloss or discoloration
Permeability	Pressure Cooker EN12206-2004	Pass 1 hour, no blistering
Chemical Resistance		Generally good resistance to acid, alkalis and oils at normal temperatures.
Mortar Resistance	EN12206-2004	No effect after 24 hours
Exterior Durability	ISO 2810 (1 year)	Meets qualicoat class 2 requirements after 3 years Florida Meets AAMA 2604-13 requirements after 5 years Florida
Accelerated Weathering	ISO11341 (1000 hrs) ISO11507:1997 QUV B 313 (600 hrs)	>90% Gloss retention >50% Gloss retention

Pre-treatment

For maximum protection it is essential to pretreat components prior to the application of **Interpon D2525 STF Matt and Texture**.
Aluminium components should receive a full multi-stage chromate conversion coating or suitable chrome-free pre-treatment or suitable pre-anodising to clean and condition the substrate. Detailed advice should be sought from the pre-treatment supplier.

Interpon D2525 STF Matt and Texture products may also be used on cast or mild steel. For outdoor use Interpon PZ anti-corrosive primer over a correctly prepared substrate is recommended.

Application

Interpon D2525 STF Matt and Texture powders can be applied by manual or automatic electrostatic spray equipment. Unused powder can be reclaimed up to a maximum of 30% using suitable equipment and recycled through the system. Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder.

All powders can show small colour differences from batch to batch, this is normal and unavoidable. While AkzoNobel take every precaution to minimize visible differences, this cannot be guaranteed. Applicators and fabricators are advised to use a single batch for parts that will be assembled together. Differences are more likely with special effect powders.

Bonded products have better application properties than blended products (more stable) but attention should still be paid to line settings in order to avoid “marble effect” and changes in aspect after recycling. For more information, it is suggested to read the *Metallic Applications Guidelines*.

Products with different codes should not be mixed even if same colour and gloss.

Post Application

For specific advice on the suitability of post coating processes such as bending or the use of sealants, adhesives, thermal break, cleaning etc. Please consult AkzoNobel.

Maintenance

For specific advice on Cleaning and Maintenance, please consult the *Interpon D series Cleaning and Maintenance Guidelines* available from AkzoNobel.

Safety Precautions

Please consult the relevant Material Safety Data Sheet (MSDS) available from AkzoNobel.

Disclaimer

FOR PROFESSIONAL USE ONLY

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

Interpon D2525 STF

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.

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

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For more information, contact your local AkzoNobel representative
www.interpon.com/contact-us

Interpon D2525 STF
Issued: 01/06/2015

Interpon®

AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing
A.B.N 43 006 014 106
1st Floor, 191 Racecourse Road, Flemington, Victoria 3031
P.O Box 240, North Melbourne, Victoria 3051
Phone (03) 9371 2400

TEST REPORT

Client :	Powder Coating Group NZ Limited	Test Number :	20-006280
		Issue Date :	18/12/2020
		Print Date :	18/01/2021

Sample Description

Clients Ref : Metwood®
Rigid Panel
Colour : Various prints
End Use : Architectural Aluminium Coating
Nominal Composition : Polyester resin powder on aluminium
Nominal Mass per Unit Area/Density : Approx: 1.2-1.7g/m2
Nominal Thickness : 80-100um

AS/NZS 1530.3-1999

Methods for Fire Tests on Building Materials, Components and Structures
Part 3: Simultaneous Determination of Ignitability,
Flame Propagation, Heat Release and Smoke Release

Face tested: Face
Date tested: [illegible]

	Standard Error		Mean	
Ignition time	0.1	67.89 min		
Flame propagation time	Nil		Nil	sec
Heat release integral	3.2		17.2	kJ/m²
Smoke release, log d	0.0363		-1.6972	
Optical density, d			0.0204	/ metre
Number of specimens ignited			6	
Number of specimens tested			6	

Regulatory Indices:

Ignitability Index	12	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Developed Index	2	Range 0-10

APPROVED SIGNATORY

MICHAEL A. JACKSON B.Sc (Hons)
MANAGING DIRECTOR

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AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing
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P.O Box 240, North Melbourne, Victoria 3051
Phone (03) 9371 2400

TEST REPORT

Client : Powder Coating Group NZ Limited

Test Number : 20-006280
Issue Date : 18/12/2020
Print Date : 18/01/2021

These results only apply to the specimen mounted, as described in this report. The result of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

Each test specimen had an unattached backing of 4.5mm thick fibre reinforced cement board.

Each test specimen was clamped along all sides.

NATA Accredited for compliance with ISO/IEC 17025 - Testing

AWTA LIMITED