Intertherm® 891

Oleoresinous Aluminium

PRODUCT DESCRIPTION

A one component, general purpose heat resistant paint, based on air drying oleoresinous resins, and pigmented with aluminium flake.

INTENDED USES

As a heat resistant coating for general site use or as an industrial maintenance coating on both ambient and high temperature steelwork up to 315ºC (600ºF) where an economical aluminium finish is required.

Suitable for all types of operations including refineries, offshore structures, power, petrochemical and chemical plants.

PRACTICAL INFORMATION FOR INTERTHERM 891

Colour	Aluminium
Gloss Level	Not Applicable
Volume Solids	48%
Typical Thickness	15-25 microns (0.6-1 mils) dry equivalent to 31-52 microns (1.2-2.1 mils) wet
Theoretical Coverage	19.20 m²/litre at 25 microns d.f.t and stated volume solids 770 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
5°C (41°F)	18 hours	72 hours	24 hours	Extended[1]
15°C (59°F)	12 hours	36 hours	24 hours	Extended[1]
25°C (77°F)	8 hours	24 hours	24 hours	Extended[1]
40°C (104°F)	5 hours	16 hours	16 hours	Extended[1]

[1] See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	43°C (109°F)	
Product Weight	1.00 kg/l (8.3 lb/gal)	
VOC	3.50 lb/gal (420 g/lt) 456 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 2010/75/EU)

Coating hazard marker GB 30981.2-S-Pb≤1000-NC Qualified for GB 30981.2-2025

See Product Characteristics section for further details

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2019.

Primed Surfaces

Intertherm 891 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Intertherm 891 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intertherm 891.

Metallic Zinc Primed Surfaces

Intertherm 891 is suitable for application to steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.33-0.41 mm (13-16 thou) Total output fluid pressure at spray tip not less than 112 kg/cm² (1593 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 15-25 microns (0.6-1.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 15-25 microns (0.6-1.0 mils) can be achieved	
Thinner	International GTA004	Do not thin more than allowed by local environmental legislation.	
Cleaner	International GTA004		

Work Stoppages

Thoroughly flush all equipment with International GTA004. All unused material should be stored in tighly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.

Clean Up

Clean all equipment immediately after use with GTA004. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

PRODUCT CHARACTERISTICS

The presence of leafing aluminium in this formulation, whilst imparting heat and corrosion resistance, can also retard access to atmospheric oxygen. As this is an air drying system curing by atmospheric oxidation, over-application will severely retard through curing.

For maximum temperature resistance it is best to specify 15 microns (0.5 mils) DFT as the volatile nature of heat sensitive organic materials will cause film defects in thicker films, including blistering.

Over-application of Intertherm 891 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Over-application of Intertherm 891 will lead to blistering at high temperatures.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

For maximum corrosion resistance a zinc silicate primer should be used. A mist coat may be required to prevent pinholing. It is preferable to overcoat the zinc silicate before weathering but in cases where this is not possible then the zinc silicate surface should be clean and free from zinc salts.

When using Intertherm 891 over inorganic zinc primer, the products should be applied in strict accordance with film thickness specifications, since application of excessive thicknesses may cause blistering. Determine that the inorganic zinc primer is thoroughly cured prior to application of the Intertherm 891 by following the curing instructions given on the relevant product data sheet.

Alternatively, Interzinc 890 zinc dust graphite primer may be specified. However, this product does not possess the ultimate corrosion resistance of zinc silicates, but is capable of tolerating lower degrees of surface preperation which may prevail in maintenance solutions

Maximum continuous dry temperature resistance for Intertherm 891 is 315ºC (600°F). For temperatures greater than 315ºC (600°F) Intertherm 50 should be used.

Intertherm 891 is not suitable for exposure to acid or alkaline environments.

Intertherm 891 is not designed for continuous water immersion.

When used as a general purpose aluminium paint Intertherm 891 can be used to overcoat all tightly adherent, clean old alkyd systems.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Recommended priming system for dry temperatures up to 100ºC (212ºF) (continuous):

Interprime 198

Recommended priming system for dry temperatures up to 315ºC (600ºF) (continuous):

Intertherm 890
Interzinc 12
Interzinc 22
Interzinc 250

For other suitable primers, consult International Protective Coatings.

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Safety Data Sheet and the container(s), and should not be used without reference to the Safety Data Sheet (SDS).

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult AkzoNobel for further advice.

PACK SIZE	Unit Size	Vol	Pack
	5 litre	5 litre	5 litre
	20 litre	20 litre	20 litre
	For availability of other pack sizes, contact AkzoNobel.		

SHIPPING WEIGHT (TYPICAL)	Unit Size	
	5 litre	5.3 kg
	20 litre	21.3 kg

STORAGE	Shelf Life	24 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (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 to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. 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 development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

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