Intertherm® 2205

International

Hot Spread Epoxy

PRODUCT DESCRIPTION

A low VOC, surface tolerant, aluminum-pigmented temperature resistant coating designed for application onto high temperature steel, in maintenance environments.

Based on hot spread epoxy technology, Intertherm 2205 is a next generation epoxy phenolic coating for high temperature applications.

Intertherm 2205 provides excellent Corrosion Under Insulation (CUI) and heat resistance, alongside easy application properties when applied directly to high temperature equipment.

INTENDED USES

For the maintenance and repair of process pipe, valves and vessels in offshore, CX environments, which operate at temperatures up to 446ºF (230ºC) and in thermal cyclical conditions.

Intertherm 2205 is designed for application to steel surfaces operating at elevated temperatures between 140ºF (60ºC) and 401ºF (205ºC), in facilities where it is desirable to reduce downtime by continuing operations during maintenance periods. Intertherm 2205 is ideal for high temperature maintenance on offshore structures and in other aggressive environments, such as refineries, where dry abrasive blasting is not possible.

Suitable for use on insulated or uninsulated surfaces.

PRACTICAL INFORMATION FOR INTERTHERM 2205

Color	Aluminum
Gloss Level	Not applicable
Volume Solids	85%
Typical Thickness	4-8 mils (100-200 microns) dry equivalent to 4.7-9.4 mils (118-235 microns) wet
Theoretical Coverage	341 sq.ft/US gallon at 4 mils d.f.t and stated volume solids 8.50 m²/liter at 100 microns d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Brush, Roller, Airless spray

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
140°F (60°C)	30 minutes	60 minutes	60 minutes	24 hours
212°F (100°C)	5 minutes	15 minutes	15 minutes	24 hours
401°F (205°C)	4 minutes	4 minutes	4 minutes	24 hours

REGULATORY DATA

Flash Point (Typical)	Part A 109°F (43°C); Part B 219°F (104°C); Mixed 122°F (50°C)	
Product Weight	11.2 lb/gal (1.34 kg/l)	
VOC	0.80 lb/gal (97 g/lt)	EPA Method 24
	98 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EC)

See Product Characteristics section for further details

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SURFACE PREPARATION

Steel Substrates

Intertherm 2205 has been designed specifically with maintenance considerations in mind and so can be applied over a range of surface preparation standards, for hand tooled, power tooled or abrasive blast cleaned methods, including SP2, SP3, SP11, SP6, SP10 (SSPC) and St2, St3, Sa2, Sa2½ (ISO8501-1).

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 8504-2000.

For hand or power tool preparation methods: areas which cannot be prepared adequately by chipping or needle gun, or where there is no pre-existing surface profile present, should be spot blasted to a minimum standard of SSPC-SP6/ ISO8501-1, Sa2. Typically, this would apply to a C or D grade rusting in this standard.

Stainless Steel

Intertherm 2205 may be applied to stainless steel substrates. Surface should be clean, degreased and either abrasive blast cleaned or power tool cleaned ensuring a 1.4-2.0 mils (35-50µm) surface profile is achieved.

Aged Coatings

Intertherm 2205 is suitable for overlap onto most aged coating systems including residual inorganic zinc silicate coatings. Remove all loose, flaking or poorly adhering coatings back to a firm edge and prepare the bare steel as above, without polishing the surface. Aged epoxy coatings and any glossy areas should be abraded; all areas to be coated should be clean, dry and free of oil or grease prior to painting.

APPLICATION

Mixing

Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.

(1) Agitate Base (Part A) with a power agitator.
(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Mix Ratio

3.50 part(s): 1 part(s) by volume

Working Pot Life

50°F (10°C)	59°F (15°C)	77°F (25°C)	104°F (40°C)
2 hours	2 hours	90 minutes	60 minutes

Airless Spray	Suitable	Tip Range 15-23 thou (0.38-0.58 mm) Total output fluid pressure at spray tip not less than 2503 psi (176 kg/cm²)
Brush	Recommended	Typically 4.0-6.0 mils (100-150 microns) can be achieved
Roller	Recommended	Typically 4.0-5.0 mils (100-125 microns) can be achieved

Thinner

Not recommended

Cleaner

International GTA007

Work Stoppages

Thoroughly clean all equipment with International GTA007. Once units of material have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up

Clean all equipment immediately after use with International GTA007. It is good working practice to periodically clean equipment during the course of the working day.

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

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PRODUCT CHARACTERISTICS

Intertherm 2205 is a low VOC, surface tolerant, high build coating which provides excellent corrosion resistance for process pipe, valves and vessels operating continuously at temperatures up to 401ºF (205ºC), and which can withstand intermittent surges up to 446ºF (230ºC).

Intertherm 2205 is the preferred product for application to hand and power tool prepared steel operating at elevated temperatures, where it is desirable for operations to continue during coating maintenance. It is designed for use on steel which is either atmospherically exposed or which is thermally insulated. Optimum performance is achieved using brush and roller application.

As Intertherm 2205 is intended for application to steelwork which is in service at temperatures above 140ºF (60ºC), there will be a rapid release of volatiles from the applied coating and suitable personal protective equipment (PPE) should be worn during application.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 8 mils (200 microns) by application of multiple coats (typically two coats).

The product will thin rapidly on application to hot surfaces above 212ºF (100ºF). Any runs and sags which form should be worked to form a uniform film prior to full cure occurring. When paint on the brush or roller starts to cure, the brush/roller should be replaced. Thinning is not required or desired.

When applied at temperatures above 212ºF (100ºC), Intertherm 2205 is suitable for re-insulation after a curing period of 10 minutes.

On exposure to high temperatures, Intertherm 2205 may go through a color change from aluminum to a faded bronze. This phenomenon is a normal part of the curing process and does not affect coating performance.

Intertherm 2205 is an immersion grade coating, and is suitable for use in situations of continuous intimate contact with wet insulation. However, Intertherm 2205 is not intended for use as an internal tank lining. Intertherm 2205 is not suitable for buried service.

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 color 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

Intertherm 2205 will normally be applied direct to metal but is compatible for overlap on the following coatings:

Interbond 2340UPC
Interplus 256
Intertherm 228HS

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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	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 liter	3.5 liter	5 liter	1 liter	1 liter
	For availability of other pack sizes, contact AkzoNobel.				
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	5 liter	5.47 kg		1.13 kg	
STORAGE	Shelf Life	12 months at 77ºF (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Disclaimer

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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