Intertherm® 890

Zinc Dust Graphite

PRODUCT DESCRIPTION

A two component, oleoresinous primer, pigmented with metallic zinc dust and graphite.

INTENDED USES

As an anti-corrosive industrial maintenance primer for steel at temperatures between 150°C (302° F) and 450°C (842°F).

Sutiable for use as an industrial maintenance coating on correctly prepared abrasive blast cleaned, hand and power tool cleaned steel on all high temperature structures such as flare stacks, exhausts, chimneys and pipework.

PRACTICAL INFORMATION FOR INTERTHERM 890

Colour	Dark Grey
Gloss Level	Matt
Volume Solids	57%
Typical Thickness	50 microns (2 mils) dry equivalent to 88 microns (3.5 mils) wet
Theoretical Coverage	11.40 m²/litre at 50 microns d.f.t and stated volume solids 457 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
5°C (41°F)	24 hours	72 hours²	48 hours	Extended¹
15°C (59°F)	16 hours	48 hours²	36 hours	Extended¹
25°C (77°F)	12 hours	36 hours²	24 hours	Extended¹
40°C (104°F)	6 hours	24 hours²	24 hours	Extended¹

¹ See International Protective Coatings Definitions and Abbreviations
² This product will not fully harden until heated.

REGULATORY DATA

Flash Point (Typical)	Mixed 44°C (111°F)	
Product Weight	2.30 kg/l (19.2 lb/gal)	
VOC	133 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning
For optimum performance: Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intertherm 890, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

However, Intertherm 890 may also be applied to a surface abrasive blast cleaned to a minimum Sa1 (ISO 8501-1:2007) C or D grade rusting, or SSPC SP7.

Hand or Power Tool Preparation
The product is designed for application to surfaces prepared to St2 (ISO 8501-1:2007) or SSPC SP2. When using power tools care should be taken to avoid surface polishing. The product may also be applied to surfaces which have been sweep blasted to Sa2. On poor surfaces brush application will assist performance.

APPLICATION

Mixing

Intertherm 890 is supplied in two parts, a liquid Binder base component (Part A) and a Powder component (Part B). The Powder (Part B) should be slowly added to the liquid Binder (Part A) whilst stirring with a mechanical agitator. DO NOT ADD LIQUID TO POWDER. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed it should be used within the working pot life specified.

Mix Ratio

4.05 part(s) : 1.00 part(s) by volume

Working Pot Life

5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
48 hours	24 hours	18 hours	12 hours

Airless Spray	Not recommended		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Air Spray (Conventional)	Suitable	Use suitable proprietary equipment	
Brush	Recommended		
Roller	Recommended		
Thinner	International GTA004	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA004		

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA004. Once units of paint 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 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.

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PRODUCT CHARACTERISTICS

Intertherm 890 is designed for use for on-site maintenance painting and will not become hard until the operating temperature is achieved. Even after heat curing this product does not achieve a high film strength, making it unsuitable for factory application even where stoving ovens can be utilised.

Airless spray is not recommended as an application method because of the difficulty of controlling thickness to 50 microns (2 mils) and the likelihood of 'packing out' of the powder component which can lead to equipment failure.

Over-application will cause Intertherm 890 to stay soft for long periods and will potentially cause delamination when heated to the required operating temperature.

Due to the presence of zinc dust in this material, Intertherm 890 is not suitable for exposure to acid or alkaline environments.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 50 microns (2 mils) over hand prepared steel.

Over-application of Intertherm 890 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

The maximum DFT which should be applied before heating is 75 microns (3 mils) otherwise blistering will occur. Two or more coats cannot be applied without heating between coats.

Maximum continuous dry temperature resistance for Intertherm 890 is 450°C (842°F).

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.

SYSTEMS COMPATIBILITY

Intertherm 890 is only recommended for application to correctly prepared steel substrate.

All topcoating systems should be applied as thin coats (15 microns : 0.5 mils DFT) to prevent blistering.

Up to 250°C (482°F)	Intertherm 875
Up to 315°C (599°F)	Intertherm 891
Up to 450°C (842°F)	Intertherm 50

For other suitable topcoats, 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 Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

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 International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	4.01 litre	5 litre	0.99 litre	5 litre
	For availability of other pack sizes, contact International Protective Coatings.				
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	5 litre	7.5 kg		4.9 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

www.international-pc.com