Intertherm® 3350

Acrylic Insulation Coating

PRODUCT DESCRIPTION

A single component, thin film spray applied insulation coating with a wide range of end uses. Based upon waterborne acrylic technology, and applied using airless spray techniques, Intertherm 3350 is suitable for use on substrates operating up to 177°C (350°F).

INTENDED USES

Intertherm 3350 is an acrylic insulation coating suitable for a variety of end uses where there is a need to control heat loss and protect personnel.

Ideal for insulating large tanks, vessels or pipework, where ease of application and superior thin film insulation performance improve productivity and minimise energy loss.

Intertherm 3350 provides a highly effective thermal barrier ideally suited to protecting personnel from burn injuries associated with high temperature equipment. This improves installation safety by reducing potential lost time accidents.

Where suitable Intertherm 3350 provides a seamless adherent insulating film enabling the removal of equipment from a corrosion under insulation (CUI) inspection program and mitigating a facility's overall CUI exposure.

PRACTICAL INFORMATION FOR INTERTHERM 3350

Colour	White, Grey
Gloss Level	Matt
Volume Solids	78%
Typical Thickness	400-500 microns (16-20 mils) dry equivalent to 513-641 microns (20.5-25.6 mils) wet
Theoretical Coverage	1.56 m²/litre at 500 microns d.f.t and stated volume solids 63 sq.ft/US gallon at 20 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless spray, Air spray

Drying Time

			Overcoating interval with self	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
10°C (50°F)	15 minutes	45 minutes	8.5 hours	Extended[1]
15°C (59°F)	15 minutes	40 minutes	7.5 hours	Extended[1]
25°C (77°F)	15 minutes	30 minutes	3 hours	Extended[1]
40°C (104°F)	15 minutes	30 minutes	75 minutes	Extended[1]

[1] See International Protective Coatings Definitions and Abbreviations

All drying time data has been quoted at the typical thickness of 400 microns (16 mils) d.f.t., 50% relative humidity and assuming good air flow.

REGULATORY DATA

Flash Point (Typical)	>101°C (>214°F)
Product Weight	0.63 kg/l (5.3 lb/gal)
VOC	0.08 lb/gal (10 g/lt) EPA Method 24

See Product Characteristics section for further details

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SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000 Remove weld spatter and smooth weld seams and sharp edges. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Primed Steelwork
Intertherm 3350 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intertherm 3350 must be applied within the overcoating intervals specified (consult the Intertherm 3350 Application Guidelines).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and a full coat of primer applied prior to overcoating with Intertherm 3350.

Stainless Steel
Ensure surface is clean, dry and free from metal corrosion products prior to application. Abrasive blast with non-metallic and chloride free abrasive (e.g. aluminium oxide or garnet) to obtain anchor profile of 25 to 32.5 microns (1.0 to 1.5 mils).

APPLICATION

Mixing	The material is a one component coating and should be mixed thoroughly with a mixing paddle, for further details consult application guidelines. **Do not mechanically shake.**		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.49-0.58 mm (19-23 thou) Total output fluid pressure at spray tip not less than 211 kg/cm² (3000 p.s.i.)	
Air Spray (Pressure Pot)	Suitable - Small touch-up areas only	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 62 AC
Brush	Not recommended		
Roller	Not recommended		
Thinner	Not normally required		
Cleaner	Clean Water or International GTA991		
Work Stoppages	Thoroughly flush all equipment with International GTA991. All unused material should be stored in tightly closed containers. Partially filled containers may show skinning and/or a viscosity increase of the material after storage.		
Clean Up	Clean all equipment immediately after use with clean water followed by International GTA991. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

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PRODUCT CHARACTERISTICS

Intertherm 3350 is typically applied at 500 microns (20 mils) per coat up to a typical total system dft of 3000 microns (120 mils).

The dft requirement for Intertherm 3350 will depend entirely upon the specific operating and ambient conditions in which the coating is expected to perform, as well as the end use for which the coating is being used. Specified film build must always be met in order to achieve expected thermal performance.

The minimum steel temperature for application must be above 10°C (50°F), and be at least 3°C (5°F) above dew point.

For optimum application and drying characteristics, the air and substrate temperature should be greater than 10ºC (50ºF) and relative humidity less than 80%.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross-spray pattern to attain maximum film build. There is no upper limit to film thickness using a multiple coat technique.

Under normal ambient conditions the use of a 250 micron (10 mil) tack coat on vertical surfaces is recommended to help eliminate sag.

The peak operating temperature should not exceed 190°C (375°F). The maximum continuous temperature should not exceed 177°C (350°F). The cured coating should not be exposed to temperatures below -51°C (-60°F).

Intertherm 3350 must be protected from freezing at all times during storage and transport. The recommended storage temperature is between 4°C (39°F) and 25°C (77°F).

Discard frozen Intertherm 3350 in accordance with local disposal regulations. Do not thaw frozen material and apply.

Good airflow is essential around the object being coated [minimum air speed 0.1m/sec (4 inches/sec), maximum air speed 0.5m/sec (20 inches/sec)]. Application at temperatures below 10°C (50°F) will retard drying and extend overcoating intervals, as will higher humidities.

At temperatures around 30°C (86°F) higher relative humidities can be tolerated with good air flow, refer to application guidelines.

PERFORMANCE DATA

	Test Method	Results
Thermal Conductivity	Thermal Probe Study	0.070 W/m/K
Reflectance	ASTM E903	0.803
Absorptance	ASTM E903	0.197

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

This product is primarily designed as a functional build coat; however it can be used on a variety of solvent based primers.

Interbond 2340UPC
Intertherm 228HS
Interseal 670HS
Interzinc 52

Maximum temperature resistance of an applied system may be limited by the temperature resistance of the primer; consult the Intertherm 3350 Application Guidelines for further information.

Intertherm 3350 is normally topcoated with itself, for other suitable topcoats please consult the Intertherm 3350 Application Guidelines.

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
- Application Guidelines
- 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 US gal	5 US gal	5 US gal

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)	Unit Size	
	5 US gal	61.7 lb

STORAGE		
	Shelf Life	18 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

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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