

Polyurethane

PRODUCT DESCRIPTION

A low VOC, two component acrylic polyurethane high performance finish coat with excellent gloss and colour retention on exterior exposure, for use over correctly prepared primed surfaces.

INTENDED USES

As a durable high gloss finish coat for exposed steelwork in a wide range of aggressive environments, including chemical and petrochemical plants, offshore structures, bridges, pulp and paper mills, power plants and refineries.

For use over correctly prepared primed steel and masonry surfaces in both new construction and maintenance situations.

Exhibits superior application properties, environmental durability and chemical resistance. Gives excellent gloss and colour retention on exterior exposure.

PRACTICAL INFORMATION FOR INTERTHANE 990HS

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	68% ± 3% (depends on colour)
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 74-110 microns (3-4.4 mils) wet
Theoretical Coverage	13.60 m ² /litre at 50 microns d.f.t and stated volume solids 545 sq.ft/US gallon at 2 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

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
10°C (50°F)	3.5 hours	30 hours	30 hours	30 days
15°C (59°F)	3 hours	22 hours	22 hours	30 days
25°C (77°F)	2 hours	12 hours	12 hours	30 days
40°C (104°F)	1 hour	4 hours	4 hours	30 days

REGULATORY DATA

Flash Point (Typical)	Part A 38°C (100°F); Part B 57°C (135°F); Mixed 39°C (102°F)	
Product Weight	1.50 kg/l (12.5 lb/gal)	
VOC	2.72 lb/gal (327 g/l)	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 paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interthane 990HS should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interthane 990HS 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-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interthane 990HS.

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	9 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 7 hours	15°C (59°F) 6 hours	25°C (77°F) 3 hours	40°C (104°F) 1 hour
Airless Spray	Recommended	Tip Range 0.38-0.48 mm (15-19 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Roller	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Thinner	International GTA056 (or International GTA713)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA056 (or International GTA713)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA056. 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 International GTA056. 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

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible. Best results in terms of gloss and appearance will always be obtained by air spray application.

For brush and roller application, and in some colours, two coats of Interthane 990HS may be required to give uniform coverage, especially when applying Interthane 990HS over dark undercoats, and when using certain lead free bright colours such as yellows and oranges. Best practice is to use a colour compatible intermediate or anticorrosive coating under the Interthane 990HS.

Application at high film thickness, i.e. greater than 100 microns (4 mils) is likely to detract from appearance due to surface defects. At low film build (40 microns / 1.6 mils) dry film thickness opacity will be insufficient to give good coverage, with a number of colours resulting in an uneven finish appearance.

Over-application of Interthane 990HS will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

When surface temperatures are greater than 40°C (104°F) for periods of greater than 72 hours then pretreatment may be required before application of a further coat of Interthane 990HS. When recoating beyond 30 days at any surface temperature, additional surface preparation may be required. Contact International Protective Coatings for recommendations.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or premature loss of gloss. Best results will always be obtained by applying with relative humidity less than 85% and with surface temperatures at least 3°C (5°F) above dew point.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

This product has the following specification approvals:

- USDA approval for incidental food contact surface in federally inspected meat and poultry plants. Subject to Inspector-In-Charge approval.

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

The following primers/intermediates are recommended for Interthane 990HS:

Intercure 200	Interplus 880
Intercure 420	Interseal 670HS
Intergard 251	Interzinc 42
Intergard 269	Interzinc 52
Intergard 475HS	Interzinc 315
InterH2O 401	Interzone 505
Interplus 256	Interzone 954
Interplus 356	Interzone 1000
Interplus 770	

Interthane 990HS is designed to be topcoated with itself.

For other suitable primers/intermediates, consult International Protective Coatings.

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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 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.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 US gal	4.5 US gal	5 US gal	0.5 US gal	1 US gal
	20 litre	18 litre	20 litre	2 litre	2.5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	5 US gal	61.1 lb		4.4 lb	
	20 litre	29.7 kg		2.5 kg	
STORAGE	Shelf Life	24 months (Part A) & 12 months (Part B) 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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