

Interthane® 990HS

P o l y u r e t h a n e

Product Description

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

Practical Information for Interthane 990HS

Color	Wide range via the Chromascan® system
Gloss Level	High gloss
Volume Solids	68% ± 3% (depends on color)
Typical Thickness	2-3 mils (50-75 microns) dry equivalent to 2.9-4.4 mils (74-110 microns) wet
Theoretical Coverage	545 sq.ft./US gallon at 2 mils d.f.t. and stated volume solids 13.6 m ² /liter at 50 microns 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 Interthane 990HS with Self	
			<i>Minimum</i>	<i>Maximum</i>
50°F (10°C)	3½ hours	30 hours	30 hours	30 days
59°F (15°C)	3 hours	22 hours	22 hours	30 days
77°F (25°C)	2 hours	12 hours	12 hours	30 days
104°F (40°C)	1 hour	4 hours	4 hours	30 days

Regulatory Data

Flash Point	Base (Part A) 100°F (38°C)	C/A (Part B) 135°F (57°C)	Mixed 103°F (39°C)
Product Weight	12.5 lb/gal (1.5 kg/l)		
VOC	2.73 lb/gal (327 g/l)	USA - EPA Method 24	
	330 g/l	UK - PG6/23(92), Appendix 3	

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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 8504:1992.

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. SSPC-SP6 or Sa2½ (ISO 8501-1:1988), 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 parts : 1 part by volume

Working Pot Life	50°F (10°C) 7 hours	59°F (15°C) 6 hours	77°F (25°C) 3 hours	104°F (40°C) 1 hour
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Airless Spray Recommended

- Tip range 15-19 thou (0.38-0.48 mm)
- Total output fluid pressure at spray tip not less than 2,000 p.s.i. (141 kg/cm²)

Air Spray (Pressure Pot) Recommended

Gun	DeVilbiss MBC or JGA
Air Cap	704 or 765
Fluid Tip	E

Brush Suitable Typically 1.5-2.0 mils (40-50 microns) can be achieved

Roller Suitable Typically 1.5-2.0 mils (40-50 microns) can be achieved

Thinner International GTA056 (or GTA713) Do not thin more than allowed by local environmental legislation.

Cleaner International GTA056 (or 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 is 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 with air spray application.

For brush and roller application, and in some colors, 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 colors such as yellows and oranges. Best practice is to use a color compatible intermediate or anti-corrosive coating under the Interthane 990HS.

Application at high film thickness, i.e. greater than 4 mils (100 microns) is likely to detract from appearance, due to surface defects. At low film build 1.5 mils (40 microns) dry film thickness opacity will be insufficient to give good coverage, with a number of colors 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 104°F (40°C) 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 RH less than 85% and with surface temperatures at least 5°F (3°C) 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 color change, especially in dark colors.

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.

Systems Compatibility

The following primers/intermediate coats are recommended for Interthane 990HS:

Intercure 200	Interplus 770
Intercure 420	Interplus 880
Intergard 251	Interseal 670HS
Intergard 269	Interzinc 42
Intergard 270	Interzinc 52
Intergard 401	Interzinc 315
Intergard 475HS	Interzone 505
Interplus 256	Interzone 954
Interplus 356	Interzone 1000

Interthane 990HS is designed to be topcoated with itself.

For other suitable primers/intermediate coats/topcoats, 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 sections of the International Protective Coatings data manual:

- 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	5 gallon unit	Interthane 990HS Base	4.5 gallons in a 5 gallon container
		Interthane 990HS Curing Agent	0.5 gallons in a 1 gallon container
	20 liter unit	Interthane 990HS Base	18 liters in a 20 liter container
		Interthane 990HS Curing Agent	2 liters in a 2.5 liter container

For availability of other pack sizes contact International Protective Coatings

Shipping Weight	U.N. Shipping No. 1263			
	5 gallon unit	61.2 lb (27.7 kg)	Base (Part A)	4.5 lb (2.0 kg) Curing Agent (Part B)
	20 liter unit	65.5 lb (29.7 kg)	Base (Part A)	5.5 lb (2.5 kg) Curing Agent (Part B)

Storage	Shelf Life	12 months minimum at 77°F (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.
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Disclaimer

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Any warranty, if given, or specific Terms & Conditions of Sale are contained in International's Terms & Conditions of Sale, a copy of which can be obtained on request. While we endeavor to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or 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 whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

It is the user's responsibility to check that this sheet is current prior to using the product. Issue date: 1st June 1997

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International Protective Coatings

<u>World Centre</u>	<u>Asia Region</u>	<u>Australasia Region</u>	<u>Europe Region</u>	<u>Middle East Region</u>	<u>North America Region</u>	<u>South America Region</u>
P.O Box 20980 Oriol House 16 Connaught Place London, W2 2ZB England	3 Neythal Road Jurong Town Singapore 628570	115 Hyde Road Yeronga Brisbane Queensland Australia	P.O Box 20980 Oriol House 16 Connaught Place London, W2 2ZB England	PO Box 37 Dammam 31411 Saudi Arabia	6001 Antoine Drive Houston Texas 77091	Av Paiva 999, Neves, Sao Gonçalo, Rio de Janeiro Brazil

Tel: (44) 20 7479 6000 Fax: (44) 20 7479 6500	Tel: (65) 663 3066 Fax: (65) 266 5287	Tel: (61) 7 3892 8888 Fax: (61) 7 3892 4287 H&S (61) 1800 807 001	Tel: (44) 20 7479 6000 Fax: (44) 20 7479 6500	Tel: (966) 3 812 1044 Fax: (966) 3 812 1169	Tel: (1) 713 682 1711 Fax: (1) 713 684 1514	Tel: (55) 21 624 7100 Fax: (55) 21 624 7123
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USA Toll Free Number (800) 589 1267
www.international-pc.com