Interthane® 990

Aliphatic Polyurethane

PRODUCT DESCRIPTION

A two component aliphatic acrylic polyurethane finish giving excellent durability and long term recoatability.

INTENDED USES

Suitable for use in both new construction and as a maintenance finish which can be used in a wide variety of environments including offshore structures, chemical and petrochemical plants, bridges, pulp and paper mills, and in the power industry.

PRACTICAL INFORMATION FOR INTERTHANE 990

Color	Wide range via the Chromascan® system
Gloss Level	High Gloss
Volume Solids	57% ± 3% (depends on color)
Typical Thickness	2-3 mils (50-75 microns) dry equivalent to 3.5-5.3 mils (88-132 microns) wet
Theoretical Coverage	457 sq.ft/US gallon at 2 mils d.f.t and stated volume solids 11.40 m²/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

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
23°F (-5°C)	8 hours	60 hours	60 hours	Extended[1]
41°F (5°C)	5 hours	24 hours	24 hours	Extended[1]
59°F (15°C)	150 minutes	10 hours	10 hours	Extended[1]
77°F (25°C)	90 minutes	6 hours	6 hours	Extended[1]
104°F (40°C)	60 minutes	3 hours	3 hours	Extended[1]

[1] See International Protective Coatings Definitions & Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 93°F (34°C); Part B 120°F (49°C); Mixed 95°F (35°C)	
Product Weight	10.1 lb/gal (1.21 kg/l)	
VOC	3.50 lb/gal (420 g/lt)	EPA Method 24
	341 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EC)
	379 g/lt (3.16 lb/US Gal)	Chinese National Standard GB23985

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 8504:2019.

Primed Surfaces

Interthane 990 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination, and Interthane 990 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 8501-1:2007), Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interthane 990.

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

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

Working Pot Life

23°F (-5°C)	41°F (5°C)	59°F (15°C)	77°F (25°C)	104°F (40°C)
26 hours	12 hours	4 hours	2 hours	45 minutes

Airless Spray

Recommended

Tip Range 13-18 thou (0.33-0.45 mm)
Total output fluid pressure at spray tip not less than 2204 psi (155 kg/cm²)

Air Spray (Pressure Pot)

Recommended

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

Air Spray (Conventional)

Recommended

Use suitable proprietary equipment.

Brush

Suitable

Typically 1.6-2.0 mils (40-50 microns) can be achieved

Roller

Suitable

Typically 1.6-2.0 mils (40-50 microns) can be achieved

Thinner

International GTA713 (or International GTA733 or GTA056)

Do not thin more than allowed by local environmental legislation

Cleaner

International GTA713 (or International GTA733 or GTA056)

Choice of cleaner may be subject to local legislation. Please consult your local representative for specific advice.

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. 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 GTA713. 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

Interthane 990 is available in a range of metallic finishes - please consult the separate Interthane 990 Metallic Working Procedures document for further information.

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 by conventional air spray application.

For brush and roller application, and in some colors, two coats of Interthane 990 may be required to give uniform coverage, especially when applying Interthane 990 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 990.

When overcoating after weathering, or aging, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals and traffic fumes, before application of a further coat of Interthane 990.

Absolute measured adhesion of topcoats to aged Interthane 990 is less than that to fresh material, however, it is adequate for the specified end use.

This product must only be thinned using the recommended International thinners. The use of alternative thinners, particularly those containing alcohols, can severely affect the curing mechanism of the coating.

Surface temperature must always be a minimum of 5°F (3°C) above dew point.

When applying Interthane 990 in confined spaces, ensure adequate ventilation.

Interthane 990 is capable of curing at temperatures below 32°F (0°C). However, this product should not be applied at temperatures below 32°F (0°C) where there is a possibility of ice formation on the substrate. Condensation occurring during or immediately after application may result in a matte finish and an inferior film. Premature exposure to ponding water will cause color change, especially in dark colors and at low temperatures.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur, contact International Protective Coatings for information regarding suitability.

A modified version of Interthane 990 is available for use within the Korean marketplace in order to provide improved workability.

On consultation with International Protective Coatings this product is compatible with alternative application methods such as flow coating.

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

The following primers/intermediates are recommended for Interthane 990:

Intercure 200	Interseal 670HS
Intercure 200HS	Intershield 300HS
Intercure 420	Interzinc 315
Intergard 251HS	Interzinc 52
Intergard 251	Interzinc 52E
Intergard 269	Interzone 954
Intergard 345	Interzone 1000
Intergard 475HS	

Interthane 990 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
- Interthane 990 Metallic Finish Working Procedures

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.

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

PACK SIZE

Unit Size	Part A		Part B	
	Vol	Pack	Vol	Pack
20 liter	17.14 liter	20 liter	2.86 liter	3.7 liter
5 US gal	4.29 US gal	5 US gal	0.71 US gal	1 US gal

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 liter	23.1 kg	3.5 kg
5 US gal	47.6 lb	7.1 lb

STORAGE

Shelf Life	24 months (Part A) and 18 months (Part B) minimum at 77°F (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.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

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