Interthane® 990E

Polyurethane

PRODUCT DESCRIPTION

A two component solvent borne, high solids aliphatic acrylic polyurethane topcoat with optimised application properties and superior aesthetics. Interthane 990E is ideal for use wherever a durable and visually appealing finish is required.

INTENDED USES

Interthane 990E is ideal for use in newconstruction or maintenance projects in a wide variety of environments for both industrial and commercial projects, from manufacturing and infrastructure to power generation and a wide variety of oil and gas assets. Contributing to the performance of an anti-corrosion system, Interthane 990E can be applied over a suitable primer, intermediate or passive fire protection system to provide excellent functionality and appearance with high gloss and low VOC content.

PRACTICAL INFORMATION FOR INTERTHANE 990E

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	70% ± 3%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 71-107 microns (2.8-4.3 mils) wet
Theoretical Coverage	14 m²/litre at 50 microns d.f.t and stated volume solids 561 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

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
-5°C (23°F)	22 hours	68 hours	60 hours	Extended[1]
5°C (41°F)	6 hours	24 hours	21 hours	Extended[1]
15°C (59°F)	2.5 hours	10 hours	10 hours	Extended[1]
25°C (77°F)	2 hours	6 hours	6 hours	Extended[1]
40°C (104°F)	90 minutes	4 hours	4 hours	Extended[1]

[1] See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 26°C (79°F); Part B 49°C (120°F); Mixed 29°C (84°F)	
Product Weight	1.49 kg/l (12.4 lb/gal)	
VOC	2.58 lb/gal (310 g/lt)	EPA Method 24
	207 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EU)
	284 g/lt	Chinese National Standard GB23985
	303 g/lt	in accordance with Korea Clean Air Conservation Act

See Product Characteristics section for further details

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 990E should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interthane 990E 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 990E.

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

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

Working Pot Life

-5°C (23°F)	5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
3 hours	2.5 hours	2 hours	1.5 hours	1 hour

Airless Spray	Recommended	Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm² (2204 p.s.i.)
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 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 GTA713 (or International GTA733 or GTA056)	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA713 (or International GTA733)	

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.

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 conventional air spray application.

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

When overcoating after weathering or ageing, 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 990E.

Absolute measured adhesion of topcoats to aged Interthane 990E 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 3°C (5°F) above dew point.

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

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

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 990E:

Chartek 8E	Intercure 200HS	Interseal 1052
Chartek 1709	Intergard 251HS	Intershield 300
Interchar 1190	Intergard 2511*	Intershield 4000USP
Interchar 2060	Intergard 269	Interzone 954
Interchar 1260	Intergard 345	Interzone 954GF
Interchar 1290	Intergard 475HS	
Interchar 3120*	Interseal 670HS	

*available only in selected countries.

For other suitable primers/intermediates consult International Protective Coatings.

Interthane 990E is designed only to be topcoated with itself.

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 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 litre	17.78 litre	20 litre	2.22 litre	5 litre
5 litre	4.45 litre	5 litre	0.55 litre	1 litre

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 litre	27.2 kg	2.36 kg
5 litre	7.31 kg	0.7 kg

STORAGE

Shelf Life	12 months (Part A) and 18 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.

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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