Interthane 990

Polyurethane Finish

PRODUCT DESCRIPTION

A two pack, acrylic polyurethane finish giving excellent durability and long term recoatability.

INTENDED USES

As a cosmetic finish on above water areas. Suitable for use on topsides, external superstructure, external decks and boottops.
For use at Newbuilding, Maintenance & Repair or On Board Maintenance.

PRODUCT INFORMATION

Colour	PHB000-White, PHY999-Black ; and a wide range of colours.
Finish/Sheen	High Gloss
Part B (Curing Agent)	PHA046
Volume Solids	57% ±3% (ISO 3233:1998)
Mix Ratio	6.00 volume(s) Part A to 1 volume(s) Part B
Typical Film Thickness	50 microns dry (88 microns wet)
Theoretical Coverage	11.4 m²/litre at 50 microns dft, allow appropriate loss factors
Method of Application	Airless Spray, Brush, Conventional Spray, Roller
Flash Point (Typical)	Part A 34°C; Part B 49°C; Mixed 35°C
Induction Period	Not required

Drying Information	-5°C	5°C	25°C	35°C
Touch Dry [ISO 9117/3:2010]	8 hrs	5 hrs	1.5 hrs	60 mins
Hard Dry [ISO 9117-1:2009]	60 hrs	24 hrs	6 hrs	4 hrs
Pot Life	26 hrs	12 hrs	2 hrs	60 mins

Overcoating Data - see limitations

	Substrate Temperature							
	-5°C		5°C		25°C		35°C	
Overcoated By	Min	Max	Min	Max	Min	Max	Min	Max
Interthane 990	60 hrs	ext	24 hrs	ext	6 hrs	ext	4 hrs	ext

Note Drying and overcoating times quoted are measured at 50 microns dry, at higher film thickness times will be increased.

REGULATORY DATA

VOC

420 g/lt as supplied (EPA Method 24)
341 g/kg of liquid paint as supplied. EU Solvent Emissions Directive (Council Directive 1999/13/EC)
379 g/lt Chinese National Standard GB23985

Note: VOC values are typical and are provided for guidance purposes only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

CERTIFICATION

When used as part of an approved scheme, this material has the following certification:

- Fire Resistance - Surface Spread of Flame (Exova Warringtonfire)
- Fire Resistance - Smoke & Toxicity (Exova Warringtonfire)
- NORSOK M-501, Rev 4, system no.1 (NITN)
- Fire Resistance - Marine Equipment Directive compliant

Approvals issued by external bodies may be dependent upon formulation and/ or manufacturing site. Consult your International Paint representative for details.

SYSTEMS AND COMPATIBILITY

Interthane 990 must be applied over a recommended primer system, which will vary depending upon the vessel area. Direct application is acceptable over the following marine anticorrosives:

Intergard 264 (USA)
Intergard 400
Intergard 5600
Intergard 5620
Intergard 7600
Intershield 300
Intershield 803
Intershield One-2-One
Interstores Alkyd Primer

A tiecoat of Intergard 263, Intergard 267 or Intergard 269 may be required if Interthane 990 is to be applied over other epoxy primers and may also be used to extend the maximum overcoating interval when Interthane 990 is to be applied over those primers listed above.

Interprime 198 may also be used as a primer for Interthane 990.

Consult your International Paint representative for the system best suited for the surfaces to be protected.

SURFACE PREPARATIONS

Use in accordance with the standard Worldwide Marine Specifications.
All surfaces to be coated should be clean, dry and free from contamination.
High pressure fresh water wash or fresh water wash, as appropriate, and remove all oil or grease, soluble contaminants and other foreign matter in accordance with SSPC-SP1 solvent cleaning.

NEWBUILDING/MAJOR REFURBISHMENT
Interthane 990 should always be applied over a recommended primer 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). For boottop areas the overcoating intervals for primers are reduced. Consult International Paint.
Areas of breakdown, damage etc. should be prepared to the specified standard (eg. Sa2½ (ISO 8501-1:2007)) and primed prior to the application of Interthane 990.

REPAIR/OBM
Interthane 990 should always be applied over a recommended primer 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). For boottop areas the overcoating intervals for primers are reduced. Consult International Paint.
Areas of breakdown, damage etc. should be prepared to the specified standard (eg. Sa2½ (ISO 8501-1:2007)) and primed prior to the application of Interthane 990.
Interthane 990 may be applied directly over aged Interthane 990 following thorough fresh water washing and degreasing provided the coating to be overcoated is in an intact and tightly adherent condition. Loose or flaking coatings should be removed back to a firm edge and Interthane 990 or an appropriate primer should be used to repair the area before application of the full coat.
This product may be applied directly over most generic types of paint that have been aged for at least 3 months. It is advisable that a small trial be carried out before applying a full coat.

Consult your International Paint representative for specific recommendations.

NOTE
For use in Marine situations in North America, the following surface preparation standards can be used: SSPC-SP10 in place of Sa2½ (ISO 8501-1:2007)

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APPLICATION

Mixing	Material is supplied in 2 containers as a unit. Always mix a complete unit in the proportions supplied. (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.
Thinner	Thinning is not normally required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.
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 (2200 p.s.i.)
Conventional Spray	Use suitable proprietary equipment. Thinning may be required.
Brush	Suitable.
Roller	Suitable.
Cleaner	International GTA056/GTA713/GTA733. Choice of cleaner maybe subject to local legislation. Please consult your local representative for specific advice.
Work Stoppages and Cleanup	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA056/GTA713/GTA733. 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 all equipment immediately after use with International GTA056/GTA713/GTA733. 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. Do not exceed pot life limitations. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.
Welding	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. In North America do so in accordance with instruction in ANSI/ASC Z49.1 "Safety in Welding and Cutting."

SAFETY

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.

Prior to use, obtain, consult and follow the Material Safety Data Sheet for this product concerning health and safety information. Read and follow all precautionary notices on the Material Safety Data Sheet and container labels. If you do not fully understand these warnings and instructions or if you can not strictly comply with them, do not use this product. Proper ventilation and protective measures must be provided during application and drying to keep solvent vapour concentrations within safe limits and to protect against toxic or oxygen deficient hazards. Take precautions to avoid skin and eye contact (ie. gloves, goggles, face masks, barrier creams etc.) Actual safety measures are dependant on application methods and work environment.
EMERGENCY CONTACT NUMBERS:
USA/Canada - Medical Advisory Number 1-800-854-6813
Europe - Contact (44) 191 4696111. For advice to Doctors & Hospitals only contact (44) 207 6359191
China – Contact (86) 532 83889090
R.O.W. - Contact Regional Office

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

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LIMITATIONS

This product is not recommended for use in permanently immersed conditions.
Interthane 990 may be used on boottop areas at reduced overcoating intervals over appropriate primers. Consult International Paint.
For brush and roller application, and in some colours, 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 finish colours such as yellows and oranges. Best practice is to use a colour compatible intermediate or anticorrosive coating under Interthane 990.
Interthane 990 may be applied at substrate temperatures down to -15°C. Before applications are made below -5°C consult your local representative for further details of application procedure.
Low temperature, high relative humidity and 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.
Overcoating information is given for guidance only and is subject to regional variation depending upon local climate and environmental conditions. Consult your local International Paint representative for specific recommendations.
Apply in good weather. Temperature of the surface to be coated must be at least 3°C above the dew point. For optimum application properties bring the material to 21-27°C, unless specifically instructed otherwise, prior to mixing and application. Unmixed material (in closed containers) should be maintained in protected storage in accordance with information given in the STORAGE Section of this data sheet. Technical and application data herein is for the purpose of establishing a general guideline of the coating application procedures. Test performance results were obtained in a controlled laboratory environment and International Paint makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection, verification of performance and use of the coating.
In the overcoating data section 'ext' = extended overcoating period. Please refer to our Marine Painting Guide - Definitions and Abbreviations available on our website.

UNIT SIZE

Unit Size	Part A		Part B	
	Vol	Pack	Vol	Pack
20 lt	17.14 lt	20 lt	2.86 lt	5 lt
1 US gal	0.86 US gal	1 US gal	0.14 US quart	1 US quart
5 US gal	4.29 US gal	5 US gal	0.71 US gal	1 US gal

For availability of other unit sizes consult International Paint

UNIT SHIPPING WEIGHT (TYPICAL)

Unit Size	Unit Weight
20 lt	26.59 Kg
1 US gal	13.7 lb
5 US gal	54.7 lb

STORAGE

Shelf Life

Part A - 24 months minimum at 25°C.
Part B - 18 months minimum at 25°C
Subject to reinspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

WORLDWIDE AVAILABILITY

Consult International Paint.

IMPORTANT NOTE

www.international-marine.com