

Acrylic Polysiloxane

PRODUCT DESCRIPTION

A patented (US 6,281,321 and EP 0 941290), high performance, two component, high solids inorganic hybrid finish which contains no free isocyanates. Interfine 979 significantly improves upon the gloss and color retention exhibited by typical polyurethane finishes as well as offering improvement in gloss and color retention when compared to 1st generation epoxy modified polysiloxane finishes. Interfine 979 also displays the same corrosion resistance and has enhanced mechanical properties when compared to traditional epoxy technology.

INTENDED USES

Interfine 979 is part of International's premium range of polysiloxane finishes. It is designed to provide excellent long-term color and gloss retention and provides extended lifetime to first maintenance when utilized as part of a high performance anti-corrosive system. Interfine 979 is intended for use in those market sectors where visual impact is important, and the need for a high standard of cosmetic appearance is required. These include high performance constructions such as bridges, offshore structures and tank farms in addition to general industrial and commercial steelwork where high levels of cosmetic performance is a key requirement. The dual benefits of corrosion protection & high cosmetic appearance afforded by Interfine 979 means that as well as exhibiting superior durability, this product also serves as an effective barrier coat similar to a traditional epoxy intermediate, and as such, allows a reduction in the total number of coats required from a multi-coat high performance system - saving application costs, and improving productivity during application.

PRACTICAL INFORMATION FOR INTERFINE 979

Color	Wide range via the Chromascan® system
Gloss Level	Gloss
Volume Solids	76%
Typical Thickness	4-6 mils (100-150 microns) dry equivalent to 5.3-7.9 mils (132-197 microns) wet
Theoretical Coverage	244 sq.ft/US gallon at 5 mils d.f.t and stated volume solids 6.08 m ² /liter at 125 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 with recommended topcoats	
			Minimum	Maximum
41°F (5°C)	6 hours	8 hours	8 hours	Extended ¹
59°F (15°C)	4.5 hours	6 hours	6 hours	Extended ¹
77°F (25°C)	3 hours	4 hours	4 hours	Extended ¹
104°F (40°C)	1.5 hours	2.5 hours	2.5 hours	Extended ¹

¹ On other undercoats consult Interfine 979 Recommended Working Procedures or Interspec for specific details. The drying times quoted have been determined at the quoted temperature and 50% relative humidity. In warmer climates (>77°F (25°C)) and/or those that have a tendency for high relative humidity (>60%), an alternative curing agent is available which will allow improved product workability. See Product Characteristics.

REGULATORY DATA

Flash Point (Typical)	Part A 90°F (32°C); Part B 131°F (55°C); Mixed 95°F (35°C)		
Product Weight	11.1 lb/gal (1.33 kg/l)		
VOC	1.81 lb/gal (218 g/lt) 162 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
	176 g/lt	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 8504:2000.

Primed Surfaces

Interfine 979 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination, and Interfine 979 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-SP10 or Sa2½ (ISO 8501-1:2007), Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interfine 979.

Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Interfine 979. Ensure zinc primers are fully cured before overcoating.

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	4 part(s) : 1 part(s) by volume			
Working Pot Life	41°F (5°C) 3.5 hours	59°F (15°C) 2.5 hours	77°F (25°C) 2 hours	104°F (40°C) 1.5 hours
	Note: Pot life times are applicable to both curing agent grades.			
Airless Spray	Recommended	Tip Range 11-21 thou (0.28-0.53 mm) Total output fluid pressure at spray tip not less than 2204 psi (155 kg/cm²)		
Air Spray (Conventional)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Brush	Suitable	Typically 2.0-3.0 mils (50-75 microns) can be achieved		
Roller	Suitable	Typically 2.0-3.0 mils (50-75 microns) can be achieved		
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA007	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 GTA007. Once units of material 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 GTA007. 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

The detailed Interfine 979 Application Guidelines should be consulted prior to use.

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. When applying Interfine 979 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

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

After mixing a slight exotherm may be noted, which is typical of this product and is a result of chemical reaction.

Pot life times must not be exceeded even though the material may be still liquid and appear useable. It is good working practice that application should commence with full unopened units of material. Due to the moisture sensitivity with partially filled units of the curing agent component, there is a danger of reaction with atmospheric moisture which could adversely affect the performance of the final coating film. This phenomenon will be more prominent in the faster drying grade of curing agent where mixed product surface skinning in the container may occur more readily, particularly in warmer climates and / or those with high humidity.

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

When applying Interfine 979 in confined spaces, ensure adequate ventilation.

Care must be taken when spray applying multiple coats of Interfine 979 to ensure that a continuous wet film is applied and a minimum dry film thickness of 100 microns (4 mils) is achieved. Failure to do so may result in pinholing which will detract from ultimate appearance and performance.

Interfine 979 will cure satisfactorily at relative humidities between 40% and 85%. Curing will be slower at lower humidities and faster at higher humidities.

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

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 Interfine 979.

Premature exposure to ponding water will cause color change, especially in dark colors and at low temperatures.

Absolute measured adhesion of topcoats to aged Interfine 979 is less than that to fresh material, however, it is adequate for the specified end use.

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 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.

Alternative Curing Agent

For improved product workability in warmer climates and / or those with high relative humidity.

The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
41°F (5°C)	10 hours	24 hours	24 hours	Extended ¹
59°F (15°C)	6 hours	12 hours	12 hours	Extended ¹
77°F (25°C)	4 hours	8 hours	8 hours	Extended ¹
104°F (40°C)	2 Hours	6 hours	6 hours	Extended ¹

¹ On other undercoats consult Interfine 979 Application Guidelines or Interspec for specific details.

SYSTEMS COMPATIBILITY

Interfine 979 can be applied over a limited range of primers and intermediates.

Suitable primers are:

Intercure 200	Intercure 200HS
Interzinc 52	Interplus 356
Interzinc 315	Interzinc 22
Interzinc 52HS	

Suitable intermediates are:

Intercure 420	Intergard 475HS
Interseal 670HS	Interzone 505
Interzone 954	

Interfine 979 must not be applied directly over Interzinc 52 low temperature grade cure (EPA176).

Absolute maximum overcoating intervals with Interfine 979 are dependent upon primer /intermediate. Interfine 979 Recommended Working Procedures must be consulted prior to use.

Interfine 979 should only be overcoated with itself.

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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
- Interfine 979 Application Guidelines

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 International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 liter	16 liter	20 liter	4 liter	5 liter
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes contact International Protective Coatings					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 liter	24.3 kg		4.4 kg	
	5 US gal	49.6 lb		8.8 lb	
STORAGE	Shelf Life	Part A: 12 months minimum at 77°F (25°C). Part B: 6 months 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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