Interseal 670HS

Surface Tolerant Epoxy

International
Protective Coatings

WORLD WIDE PRODUCT RANGE

PRODUCT DESCRIPTION

A low VOC, two component high build, high solids surface tolerant epoxy maintenance coating.

Available in an aluminium pigmented version to provide additional anti-corrosive barrier protection.

INTENDED USES

For application to a wide variety of substrates including hand prepared rusty steel, abrasive blast cleaned and hydroblasted steel, and a wide range of intact, aged coatings.

Provides excellent anti-corrosive protection in industrial, coastal structures, pulp and paper plants, bridges and offshore environments in both atmospheric exposure and immersion service.

NSF®

Certified to ANSI/NSF Standard 61. NSF Certification is for tanks greater than 100 gallons (378½ litres).

PRACTICAL INFORMATION FOR INTERSEAL 670HS

Colour	Range
Gloss Level	Semi-gloss (Aluminium is eggshell)
Volume Solids	82% ± 3% (depends on colour)
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 122-244 microns (4.9-9.8 mils) wet
Theoretical Coverage	6.56 m²/litre at 125 microns d.f.t and stated volume solids 263 sq.ft/US gallon at 5 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 Interseal 670HS with Self			Overcoating Interval with recommended topcoats		
Temperature	Touch Dry	Hard Dry	*Min*	*Max*•	*Max*†	*Min*	*Max*•	*Max*†#
10°C (50°F)	8 hours	32 hours	32 hours	6 weeks	Extended*	20 hours	21 days	12 weeks
15°C (59°F)	7 hours	26 hours	26 hours	4 weeks	Extended*	14 hours	14 days	8 weeks
25°C (77°F)	5 hours	18 hours	18 hours	14 days	Extended*	10 hours	7 days	4 weeks
40°C (104°F)	2 hours	6 hours	6 hours	7 days	Extended*	4 hours	3 days	2 weeks

▲ For curing at low temperatures, an alternative curing agent is available. See Product Characteristics for details.
• Refers to situations where immersion is likely to occur.
† Refer to atmospheric service only.
* See International Protective Coatings Definitions & Abbreviations.
# Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point	Base (Part A) 36°C (97°F)	C/A (Part B) 56°C (133°F)	Mixed 33°C (91°F)
Product Weight	1.6 kg/l (13.3 lb/gal)		
VOC	175 g/l		UK - PG6/23(92), Appendix 3
	2.00 lb/gal (240 g/l)		USA - EPA Method 24

ECOTECH

Ecotech is an initiative by International Protective Coatings a world leader in coating technology to promote the use of environmentally sensitive products across the globe.

ENG0305

Interseal 670HS

Surface Tolerant Epoxy

Surface Preparation

The performance of this product will depend upon the degree of surface preparation. The surface 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.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

For immersion service, Interseal 670HS must be applied to surfaces blast cleaned to Sa2½ (ISO 8501-1:1988) or SSPC-SP10. However, for atmospheric exposure best performance will be achieved when Interseal 670HS is applied to surfaces prepared to a minimum of Sa2½ (ISO 8501-1:1988) or SSPC-SP6.

Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum St2 (ISO 8501-1:1988) or SSPC-SP2.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:1988) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Ultra High Pressure Hydroblasting/Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2½ (ISO 8501-1:1988) or SSPC-SP6 which have flash rusted to no worse than Grade HB2½M (refer to International Hydroblasting Standards) or Grade SB2½M (refer to International Slurry blasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interseal 670HS is suitable for overcoating a limited range of intact, tightly adherent aged coatings. Loose or flaking coatings should be removed back to a firm edge. Glossy finishes may require light abrasion to provide a physical 'key'. See Product Characteristics section for further information.

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	5.67 parts : 1.00 part by volume	
Working Pot Life	10°C (50°F) 5 hours 15°C (59°F) 3 hours 25°C (77°F) 2 hours 40°C (104°F) 1 hour	
Airless Spray	Recommended	- Tip range 0.45-0.58 mm (18-23 thou) - Total output fluid pressure at spray tip not less than 176 kg/cm^2 (2,500 p.s.i.)
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E
Brush	Recommended	Typically 100-125 microns (4-5 mils) can be achieved
Roller	Recommended	Typically 75-100 microns (3-4 mils) can be achieved
Thinner	International GTA220 (or GTA415)	May be necessary at low temperatures, see Product Characteristics. Do not thin more than allowed by local environmental legislation.
Cleaner	International GTA822 (or GTA415)	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. 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 GTA822. 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.	

Interseal 670HS

Surface Tolerant Epoxy

Product Characteristics

In order to achieve optimum performance on hand prepared steel, the aluminium pigmented version should be applied as a primer coat by brush to ensure thorough wetting out of the substrate by Interseal 670HS.

For water immersion service, surface preparation to a minimum of Sa2½ (ISO 8501-1:1988) or SSPC-SP10 followed by application of multi-coats of Interseal 670HS to a total minimum dry film thickness of 250 microns (10 mils) is required.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

If salt water is used in the wet blast process the resulting surface must be thoroughly washed with fresh water before application of Interseal 670HS. With freshly blasted surfaces a slight degree of flash rusting is allowable, and is preferable to the surface being too wet. Puddles, ponding and accumulations of water must be removed.

Interseal 670HS is suitable for overcoating intact, aged alkyd, epoxy and polyurethane systems. However, this product is not recommended where thermoplastic coatings such as chlorinated rubbers and vinyls have previously been used. Please consult International Protective Coatings for alternative recommendations.

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

Level of sheen and surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

In common with all epoxies Interseal 670HS will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

Interseal 670HS can be used as a non-skid deck system by modification with addition of GMA132 (crushed flint) aggregate. Application should then be to a suitably primed surface. Typical thicknesses will be between 500-1,000 microns (20-40 mils). Preferred application is by a suitable large tip hopper gun (e.g. Sagola 429 or Air texture gun fitted with a 5-10 mm nozzle). Trowel or roller can be used for small areas. Alternatively, a broadcast method of application can be used. Consult International Protective Coatings for further details.

Interseal 670HS is certified to ANSI/NSF Standard 61 (selected colours only). Consult International Protective Coatings for further details. Certification is for tanks greater than 100 gallons (378½ litres), for pipes which are 6 inches (15 cm) in diameter or greater and for valves which are 2 inches (5 cm) in diameter or greater.

Low Temperature Curing

A winter grade curing agent is also available to enable more rapid cure at temperatures less than 10°C (50°F), however this curing agent will give an initial shade variation and more rapid discoloration on weathering.

Interseal 670HS 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.

			Overcoating Interval Interseal 670HS with Self			Overcoating Interval with recommended topcoats		
Temperature	Touch Dry	Hard Dry	*Min*	*Max* •	*Max* †	*Min*	*Max* •	*Max* †
- 5°C (23°F)	24 hours	72 hours	72 hours	12 weeks	Extended*	72 hours	8 weeks	12 weeks
0°C (32°F)	16 hours	56 hours	56 hours	10 weeks	Extended*	42 hours	6 weeks	10 weeks
5°C (41°F)	9 hours	36 hours	36 hours	8 weeks	Extended*	36 hours	28 days	8 weeks
10°C (50°F)	5 hours	24 hours	24 hours	6 weeks	Extended*	16 hours	21 days	6 weeks

• Refers to situations where immersion is likely to occur.
† Refer to atmospheric service only.
* See International Protective Coatings Definitions & Abbreviations.

Touch dry times shown above are actual drying times due to chemical cure, rather than physical set due to solidification of the coating film at temperatures below 0°C (32°F).

Systems Compatibility

Interseal 670HS will normally be applied to correctly prepared steel substrates. However, it can be used over suitably primed surfaces. Suitable primers are:

Intercure 200
Intergard 269
Interplus 256
Interplus 356
Interzinc 315

Where a cosmetically acceptable topcoat is required the following products are recommended:

Intercryl 530
Interfine 629HS
Interfine 878
Interfine 979
Intergard 740
Interthane 870
Interthane 990

Other suitable primers/topcoats are available. Consult International Protective Coatings.

ENG0305

Interseal 670HS

Surface Tolerant Epoxy

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.

Pack Size	20 litre unit	Interseal 670HS Base Interseal 670HS Curing Agent	17 litres in a 20 litre container 3 litres in a 3.7 litre container
	5 gallon unit	Interseal 670HS Base Interseal 670HS Curing Agent	4.25 gallons in a 5 gallon container 0.75 gallons in a 1 gallon container
	For availability of other pack sizes contact International Protective Coatings		
Shipping Weight	U.N. Shipping No.	1263	
	20 litre unit	30.8 kg (67.9 lb) Base (Part A) 3.5 kg (7.6 lb) Curing Agent (Part B)	
	5 gallon unit	29.4 kg (64.9 lb) Base (Part A) 3.08 kg (6.8 lb) Curing Agent (Part B)	
Storage	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Protect from frost.	

Disclaimer

International Protective Coatings

Worldwide Availability

World Centre	Asia Region	Australasia Region	Europe Region	Middle East Region	North America Region	South America Region
P.O Box 20980 Oriel 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 Oriel 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

Local Office:
Tel: 0191 469 6111 Fax: 0191 495 0676