

Phenolic Epoxy Novolac

PRODUCT DESCRIPTION

Designed specifically for the subsea market, Intertherm 3070 is a two component phenolic epoxy novolac with excellent high temperature resistance and compatibility with cathodic protection.

INTENDED USES

Specifically intended to provide corrosion protection for subsea equipment such as trees and manifolds.

Intertherm 3070 has been designed for use to protect subsea equipment with a maximum steel operating temperature of 185°C (365°F).

PRACTICAL INFORMATION FOR INTERTHERM 3070

Colour	A limited range of colours
Gloss Level	Semi Gloss
Volume Solids	70% ± 2%
Typical Thickness	100-175 microns (4-7 mils) dry equivalent to 143-250 microns (5.7-10 mils) wet
Theoretical Coverage	5.80 m ² /litre at 120 microns d.f.t and stated volume solids 234 sq.ft/US gallon at 4.8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
10°C (50°F)	6 hours	24 hours	30 hours	14 days
15°C (59°F)	5 hours	16 hours	25 hours	14 days
25°C (77°F)	3 hours	6 hours	15 hours	14 days
40°C (104°F)	2 hours	3 hours	10 hours	14 days

Overcoating data refers to application of second full coat over first full coat. Refer to Intertherm 3070 Application Guidelines for detailed information on overcoating intervals.

REGULATORY DATA

Flash Point (Typical)	Part A 24°C (75°F); Part B 27°C (81°F); Mixed 24°C (75°F)		
Product Weight	1.67 kg/l (13.9 lb/gal)		
VOC	2.42 lb/gal (290 g/l) 187 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Protective Coatings

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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.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to a minimum Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

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

Intertherm 3070 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

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

Areas of breakdown, damage, weld seams etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10. A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Stainless Steel

Ensure surface is clean, dry and free from metal corrosion products prior to application. Light sweep with nonmetallic and chloride free abrasive (e.g. aluminium oxide or garnet) to obtain anchor profile of approximately 25-50 microns (1-2 mils).

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. It is recommended that Intertherm 3070 is allowed a 20 minute induction period after mixing, prior to commencing application.			
Mix Ratio	7.38 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) *	15°C (59°F) 5 hours	25°C (77°F) 3 hours	40°C (104°F) 1 hour
*This product has a minimum working pot life temperature of 15°C (59°F) please refer to page 3 for more information.				
Airless Spray	Recommended	Tip Range 0.38-0.58 mm (15-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm² (2503 p.s.i.)		
Brush	Suitable - small areas only	Multiple coats may be required to achieve specified film thickness.		
Roller	Suitable - small areas only	Multiple coats may be required to achieve specified film thickness.		
Thinner	Not recommended			
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 or International GTA415. 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 or International GTA415. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should 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.			

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PRODUCT CHARACTERISTICS

Intertherm 3070 will not cure adequately below 10°C (50°F). At no time during the application and up to the first 48 hours after application of the final coat must the steel temperature fall below 10°C (50°F). In addition, the relative humidity must not exceed 50% for temperatures in the range 10-20°C (50-68°F), or exceed 80% for temperatures greater than 20°C (68°F).

Intertherm 3070 should be at 15°C (59°F) prior to application.

In common with all epoxy coatings Intertherm 3070 may chalk or discolour on exterior exposure. Rate of chalking will depend upon climatic conditions, will have no adverse effect upon anti-corrosive property and will be limited to a thin surface layer.

The recommended total system DFT is 350 microns (14 mils), applied as two coats of 175 microns (7 mils). Intertherm 3070 may also be applied as three coats of 120 microns (4.8 mils). The overall coatings scheme thickness must not exceed 450 microns (18 mils).

Time to Immersion

The following minimum cure times are recommended for Intertherm 3070 prior to submersion:

	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
Immersion	7 days	4 days	4 days	3 days

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. The use of other methods, e.g. brush or roller, may require more than one coat and are suggested only for small areas and initial stripe coating.

Stripe coating is an essential part of good working practice and as such should form part of any specification. Stripe coats may not be overcoated wet-on-wet for this product. Refer to Intertherm 3070 Application Guidelines for detailed information on overcoating intervals.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing into service.

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

Intertherm 3070 will normally be applied to correctly prepared steel substrates.

Intertherm 3070 should only be overcoated with itself.

Where Intertherm 3070 is to be covered by subsea insulation, consult the insulation manufacturer for further guidance.

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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
- 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.

Before use, obtain, read then follow the advice given on the Material Safety Data Sheets (Part A and B) and the health and safety section of the Coatings Application Procedures for this product.

The detailed safety measures are dependant on application methods and the work environment. If you do not fully understand these warnings and instruction or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A	Part B		
		Vol	Pack	Vol	Pack
	20 litre	17.56 litre	20 litre	2.38 litre	2.5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B		
	20 litre	31.17 kg	2.29 kg		
STORAGE	Shelf Life	Part A - 12 months minimum at 25°C (77°F).			
		Part B - 18 months 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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