

Epoxy

PRODUCT DESCRIPTION

Cealcode 68 Lining is a fibreglass reinforced, toughened epoxy lining system developed for protection of concrete and steel surfaces that are subjected to immersion and corrosive chemical environments.

INTENDED USES

A protective reinforced lining for tanks, chemical trenches and sumps.

Cealcode 68 Lining is particularly well suited for thickeners, clarifiers and areas that require chemical containment over cracked concrete.

PRACTICAL INFORMATION FOR CEILCOTE 68 LINING

Colour	Grey
Gloss Level	Not applicable
Volume Solids	100% reactive, although determined volume solids depends upon the application conditions. A recommended working figure is 97%.
Typical Thickness	<p>Basecoat:(Resin+Powder)1500 microns (60 mils) dry equivalent to 1550 microns (62 mils) wet, with Resin theoretical coverage of 1.34 sq.m/litre (55 sq.ft/US gallon). Powder coverage at 2.4kg/sq.m (0.5lb/sq.ft)</p> <p>Laminate (Resin saturated reinforced mat):800 microns (32mils) with a theoretical coverage of 1.22 sq.m/litre (50 sq.ft/US gallon). Mat coverage at 1.1 x surface area</p> <p>Topcoat:Cealcode 68 Lining utilises topcoat design from a range of Cealcode roller or spray applied coatings. Selection is dependent on intended service conditions. Consult International Protective Coatings Cealcode representative for specific recommendations for topcoats and number of coats.</p>
Practical Coverage	Allow appropriate loss factors. Coverage will vary according to individual systems and the configuration of the surface to be coated; consult the relevant Application Guidelines and specification for further information.
Method of Application	Trowel, Roller, Airless spray
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	12 hours	4 days	24 hours	4 weeks
23°C (73°F)	8 hours	24 hours	10 hours	4 weeks
30°C (86°F)	6 hours	16 hours	6 hours	2 weeks

REGULATORY DATA

Flash Point (Typical) Part A 93°C (199°F); Part B 107°C (225°F); Mixed 93°C (199°F)

Product Weight 1.08 kg/l (9.0 lb/gal)

VOC 0.54 lb/gal (65 g/lit) EPA Method 24

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.

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

Steel Substrates

For immersion service or service in humid conditions or elevated temperatures, this product should be applied to surfaces which have been prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007), SSPC SP5 or NACE #1. For dry environments, abrasive blast cleaning to Sa2½ (ISO 8501-1:2007), SSPC SP10 or NACE #2 will be suitable. A minimum surface profile of 75 microns (3 mils) is required. Surfaces must be primed using Ceilcote 680M at 50-125 microns WFT (2-5 mils WFT).

Concrete Substrates

Concrete should be well cured prior to priming with Ceilcote 68 Lining. The concrete surface should be dry and pass the plastic sheet test (ASTM D4263). All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All concrete surfaces must also be abrasive blast cleaned to provide a roughened surface and remove laitance. The surface tensile strength (ASTM 4541) as prepared should be at least 2MPa (300 psi). Refer to the Concrete Surface Preparation Guidelines for more information. Surfaces must be primed using Ceilcote 680M at 50-125 microns WFT (2-5 mils WFT).

APPLICATION

Mixing	<p>Ceilcote 68 Lining must always be mixed and applied in accordance with the detailed Application Guidelines for the subsequent system. The resin component of this material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the material has been mixed it must be used within the working pot life specified.</p> <ol style="list-style-type: none"> (1) Agitate Part A, then combine the entire contents of Part A and Part B and mix thoroughly with a power agitator. (2) Part C, the powder component, should be slowly added to the thoroughly mixed Part A and Part B whilst stirring with a power agitator. See Product Characteristics Section for details of quantities required. 						
Mix Ratio	3 part(s) : 1 part(s) by volume						
Working Pot Life	<table border="0"> <tr> <td>10°C (50°F)</td> <td>23°C (73°F)</td> <td>30°C (86°F)</td> </tr> <tr> <td>60 minutes</td> <td>30 minutes</td> <td>20 minutes</td> </tr> </table>	10°C (50°F)	23°C (73°F)	30°C (86°F)	60 minutes	30 minutes	20 minutes
10°C (50°F)	23°C (73°F)	30°C (86°F)					
60 minutes	30 minutes	20 minutes					
Airless Spray	Suitable						
Roller	Suitable						
Trowel	Suitable						
Thinner	DO NOT THIN						
Cleaner	Ceilcote T-410 Solvent (or MEK)						
Work Stoppages	Do not allow material to remain on equipment. 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	<p>Clean all equipment immediately after use with T-410 Solvent (or MEK).</p> <p>All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.</p>						

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PRODUCT CHARACTERISTICS

The detailed Application Guidelines for the relevant Ceilcote system should always be consulted prior to use. The Ceilcote 68 Lining application shall be conducted by the Applicator Company using employees trained in the appropriate application procedures. It is strongly advised that both application and application supervision is only carried out by professional personnel who have been trained in the correct use of the products.

The exact specification with regards to dry film thickness and number of coats will be provided by International Protective Coatings prior to application start up.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. Ensure adequate ventilation is provided throughout application and curing. Dehumidification (DH) air conditioning and/or heating equipment may be necessary to control environmental conditions.

For all application steps, the surface temperature, air temperature and material temperature should be between 10°C (50°F) and 43°C (110°F).

When working outside or in direct sunlight, concrete "gassing" or "breathing" may occur when the surface temperature is rising due to sunlight or increasing ambient temperature. This can cause bubbles or holes in the applied floor, lining or coating. When this problem occurs it is necessary to shade the surface from sunlight and/or apply the material in the cooler evening or at night so that initial cure can take place without air escaping from the concrete. Consult International Protective Coatings for more detailed recommendation.

Maximum continuous dry temperature resistance for Ceilcote 68 Lining is 93°C (200°F). Maximum continuous immersion temperature resistance for Ceilcote 68 Lining is 71°C (160°F) on concrete and 60°C (140°F) on steel.

Application

1. Using a trowel, apply 1000-2000 microns (40-80 mils) of basecoat (target 1500 microns, 60 mils).
2. Press the mat reinforcement into the basecoat, leaving no wrinkles or hollows and apply resin saturant until the reinforcement is translucent.
3. Allow to cure and apply topcoat.
4. Allow to cure.

Ceilcote 68 Lining can be applied with a range of Ceilcote topcoats; dependent on intended service conditions. Consult International Protective Coatings Ceilcote representative for specific recommendations.

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

Ceilcote 68 Lining should always be applied over correctly prepared primed substrates. Suitable primers are:

Ceilcote 680 Primer Ceilcote 680M
Ceilcote 690

Typical topcoats are:

Ceilcote 600 Flakeline Ceilcote 600HB Flakeline
Ceilcote 662 Flakeline Ceilcote 664 Ceilgard

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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

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	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	4 US gal	3 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	
		31 lb		9 lb	
	4 US gal	31 lb		9 lb	
STORAGE	Shelf Life	18 months at 23°C (73°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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