

Polymer Modified Cementitious Coating

PRODUCT DESCRIPTION

A two component, epoxy and polymer modified cementitious coating for the protection of concrete and steel substrates.

INTENDED USES

Specifically designed for the structural waterproofing and protection of concrete substrates where improved chemical and abrasion resistance is required. Intercrete 4840 can be reinforced with Intercrete 4872 tape to accommodate movement of cracks and joints.

Intercrete 4840 offers low permeability to water at 10 bar positive and negative pressure along with excellent resistance to carbon dioxide gas and chloride ion diffusion.

It can also be used as a one or two coat, direct-to-metal corrosion protection system for suitably prepared steel substrates.

PRACTICAL INFORMATION FOR INTERCRETE 4840

Colour	Grey			
Gloss Level	Matt			
Volume Solids	100% (based on wet film thickness applied being equal to dry film thickness)			
Typical Thickness	2000 microns (80 mils) dry			
Theoretical Coverage	Typically 8.1m ² at 2000 microns (80 mils) dry film thickness per 30kg composite pack			
Practical Coverage	Allow appropriate loss factors			
Density	1850 kg/m ³ (115.49 lb/ft ³)			
Method of Application	Airless Spray, Brush, Trowel, Skid Leveller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
20°C (68°F)	5 hours	18 hours ¹	45 minutes	7 days ²

¹ Applied at 2000µm (80 mils); may depend on weather conditions

² If the maximum overcoating interval is exceeded the surface must be thoroughly cleaned and saturated prior to overcoating.

REGULATORY DATA

Flash Point (Typical)	Not applicable		
VOC	0 g/lt	Calculated	
See Product Characteristics section for further details			

Protective Coatings

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SURFACE PREPARATION

Concrete Substrates

All surfaces should be clean and free from laitance, curing compounds, release agents, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. The preferred methods of surface preparation are wet grit or water blasting techniques.

Any defects such as blow holes, small and large voids etc. revealed by the surface preparation process must be treated using the appropriate Intercrete products. Consult the Intercrete 4840 Application Guidelines for further information.

Thoroughly soak the substrate with clean water until fully saturated. Remove excess water prior to application of Intercrete 4840.

All concrete floors, decks and highly porous substrates should be appropriately sealed using Intercrete 4850.

Steel Substrates

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.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner. A sharp, angular surface profile of 75-100 microns (3-4 mils) is recommended.

APPLICATION

Mixing	Intercrete 4840 is supplied in two parts; a liquid binder component (Part A) and a powder component (Part B). MIX FULL UNITS ONLY. Shake Part A thoroughly and pour into a suitable mixing container, then slowly add Part B whilst stirring with a mechanical agitator. Mix for 5 minutes with regular scraping of the container sides to prevent lumps from forming. For spray application, material should be filtered through a 4mm sieve. Once the unit has been mixed it should be used within the working pot life specified.	
Working Pot Life	20°C (68°F) 30 minutes	
Airless Spray	Recommended	Tip Size 1.09 mm (43 thou) Total output fluid pressure at spray tip not less than 189 kg/cm ² (2688 p.s.i.)
Brush	Recommended - Small areas only	
Thinner	DO NOT THIN	
Cleaner	Clean Water	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with clean water.	
Clean Up	Clean all equipment immediately after use with clean water. 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

Always consult the Intercrete 4840 Application Guidelines prior to use.

This datasheet provides general guidance on the use of Intercrete 4840. Specific project requirements will be dependent upon the substrate type, substrate condition, service end use and environmental conditions. Always consult International Protective Coatings to confirm that Intercrete 4840 is suitable for the intended end use.

The detailed project specification provided by International Protective Coatings must be followed at all times.

Intercrete 4840 must be protected from freezing at all times during storage and transport. The recommended storage temperature is between 4°C (39°F) and 25°C (77°F).

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

This product will not cure adequately below 5°C (41°F). For maximum performance, curing temperatures should be between 10°C (50°F) and 35°C (95°F).

Intercrete 4840 is typically applied in two coats at 1000 microns (40 mils) per coat. When applying to floors, decks and areas with tidal movement it is recommended that Intercrete 4840 be applied in a single coat at 2000 microns (80 mils).

Intercrete 4840 is not designed to provide a decorative finish and may dry with a patchy appearance until uniformly weathered.

In cold, humid conditions, condensation may form on the surface of Intercrete 4840 resulting in a darker finish and an increase in cure time.

To aid curing, Intercrete 4870 curing membrane should be applied directly over Intercrete 4840.

Intercrete 4840 is compatible with sacrificial and impressed current cathodic protection systems.

Mechanical Characteristics

(typical values)

Compressive Strength (BS4551 @ 20°C (68°F))

1 day 5-10MPa

7 days 30-40MPa

28 days 50-60MPa

Flexural Strength (BS4551 @ 20°C (68°F))

28 days 11-14MPa

Adhesive Strength

Over concrete >2MPa

Over steel >3MPa

Water permeability: 2mm = 6000mm of typical concrete.

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.

SYSTEMS COMPATIBILITY

Concrete Substrates

Depending upon the condition of the substrate and any exposed steel reinforcement, additional surface preparation products from the Intercrete range may be required prior to the application of Intercrete 4840. Consult International Protective Coatings for further details.

All concrete floors, decks and highly porous substrates should be appropriately sealed using Intercrete 4850.

Steel Substrates

Intercrete 4840 should always be applied directly to correctly prepared steel substrates.

The following topcoats are recommended for Intercrete 4840:

Intercrete 4840
Ceilcote 680M

Intercrete 4820
Interseal 670HS

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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
- Intercrete 4840 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 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

30kg composite packs
For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)

STORAGE	Shelf Life	12 months minimum at 25°C (77°F).
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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.

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