Intercrete® 4840

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 subtrates.

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 8.1m² at 2000 microns (80 mils) dry film thickness per 30kg composite pack
Practical Coverage	Allow appropriate loss factors
Density	1850 kg/m³ (115.49 lb/ft³)
Method of Application	Airless Spray, Brush, Trowel, Skid Leveller

Drying Time

			Overcoating interval with self	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
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

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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/cm² (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	Intercrete 4820
Ceilcote 680M	Interseal 670HS

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).

Important Note