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## Intercrete 4871 Application Guidelines

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**These guidance notes are intended to assist applicators and are for guidance only; Akzo Nobel accepts no liability for the acts or omissions of any applicators.**

**Applicators must make direct contact with International Protective Coatings to discuss any training requirements for the application of the Intercrete product range PRIOR to any commencement of a project.**

*The information in this guideline is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this guideline 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 guideline 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 guideline 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 International Paint representative that this guideline is current prior to using the product.*

### Protective Coatings

All products supplied and technical advice or recommendations given are subject to our standard Conditions of Sale.



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## SCOPE AND PURPOSE

The International Paint Application Guidelines have been produced and revised in line with the Worldwide Protective Coatings Product Range. The purpose of the guidelines is to ensure that a coating system, as applied, provides adequate protection.

Successful in-service performance of a lining system depends upon both the correct choice of coating and the adoption of the correct guidelines for surface preparation and product application.

The responsibilities for achieving the specific standards outlined, and for carrying out surface preparation and product application, rest with the Contracting Company. Under no circumstances do these responsibilities rest with International Paint. We will generally provide for the presence of a Technical Service Representative at key stages during the performance of the contract. The role of the International Paint Technical Service Representative is advisory only unless otherwise specified in the terms and conditions of the contract. The information contained herein presents guidelines for the application of Intercrete 4871 to steel reinforcement.

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## 1. Specification

This document provides general guidance on the use of Intercrete 4871. 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 4871 is suitable for the intended end use.

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

Intercrete 4871 is typically specified in 2 layers at 1mm per layer (total 2mm thickness)

## 2. Surface Preparation

In common with most cementitious coatings schemes, the performance level of Intercrete 4871 is ultimately determined by degree of surface preparation. The higher the degree of surface preparation achieved, the greater the long-term performance.

### 2.1 Steel Reinforcement Surfaces

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 Blasting

For optimum performance, abrasive blast clean to Sa2½ (ISO 8501-1:1988) or SSPC-SP6. An angular surface profile of 75-100 microns (3-4 mils) is recommended.

#### Hand or Power Tool Cleaning

Where environmental constraints preclude the use of abrasive blast cleaning, hand/power tool cleaning is acceptable. There should be no chlorides present in the surrounding concrete.

Clean to a minimum of St3 (ISO 8501-1:2007) or SSPC –SP3 using appropriate equipment, and apply a layer of Intercrete 4871 as soon as possible.

Intercrete 4871 can be applied directly to damp steel substrates where excess standing water has been removed.

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### 3. Environmental conditions

#### 3.1 Low Temperature (<10°C (50°F))

The following are general guidelines for the usage of Intercrete products in low temperature environments

- **DO NOT** store or subject Intercrete products to temperatures below 5°C (41°F).
- **Do not use any Part A material which has frozen**
- Application of cement based mortars or coatings should **NOT** be carried out when the air temperature is 5°C (41°F) or less on a falling thermometer.
- Cement based mortars or coatings **MAY** be applied at an air temperature above 2°C (36°F) on a rising thermometer, providing the following precautions are taken:
  - The temperature of the materials at the time of placing is at least 5°C (41°F).
  - The substrate must be free from snow, ice and frost and be at a temperature of at least 5°C (41°F). Substrate temperatures are to be measured at the surface at the most unfavourable position.
  - Cementitious materials will have set and have started to gain strength and before being subjected to freezing temperatures.
- Use insulation materials where appropriate. Bubble wrap, polystyrene sheet, etc, are suitable and should be placed immediately after the repair has been completed for maximum protection.
- Drying times and overcoating times are extended at low temperatures

#### 3.2 High Temperature (>35°C (95°F))

The following are general guidelines for the usage of Intercrete products in high temperature environments

- Avoid working in direct sunlight. Construct temporary shelter or work during the cooler parts of the day (early morning, evening or overnight under flood lights).
- Store the products at a cool temperature well in advance of use, to extend working life when mixed.
- Keep mixing and application equipment in shade, away from heat.
- Use mixed materials without delay. Mix only sufficient material that can be placed within the working life of the material. Avoid mixing large quantities. High application temperatures can greatly reduce the working life of cementitious products.
- Where applicable apply **Intercrete 4870 curing membrane** liberally to the surface immediately after the application of the cement based mortar or cementitious coating. In extreme conditions apply a second coat

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#### 4. Mixing

Intercrete 4840 is supplied in two parts; a liquid binder component (Part A) and a powder component (Part B).

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.

Mix ratio: 1 Part A to 3 Parts B by volume. Do not add water.

Working pot life is approximately 60 minutes at 20°C. Only mix as material as can be applied within the pot life of the material


#### 5. Application

Apply a 1mm coat of Intercrete 4871 by brush as soon as possible following surface preparation (within 24 hours). Allow the first coat to stabilise but not fully cure, then apply a second 1mm coat to give a total film thickness of 2mm. If the first coat is allowed to cure for more than 7 days, the surface must be thoroughly cleaned and saturated prior to applying the second coat. Regularly check coating thickness during application.

It is good practice to hold a piece of cardboard behind the reinforcement to prevent excess application onto the surrounding concrete.

Visually inspect to ensure the applied film is free from pinholes, voids and misses. Touch up as required.

Allow the second coat to set for 2 -6 hours prior to applying Intercrete repair mortars such as Intercrete 4801 and Intercrete 4802.

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