



# WPM 415 C

## Crystalline waterproofing

### DESCRIPTION

WPM 415 C is a specially developed chemical consisting of Portland cement, very fine treated silica sand and various active, proprietary chemicals. These active chemicals react with the moisture in fresh concrete and the by-products of cement hydration to cause a catalytic reaction, which generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete. The crystal formation follows the water back as far as it is present in the structure and permanently blocks the passage of water.

WPM 415 C is suitable for use either as a surface coating or concrete additive to achieve high resistance to water ingress. Rate and penetration of crystal formation depends on the presence of free lime and the density of the concrete. Old concrete may have no free lime present and needs to be determined prior to application.

### STANDARD

WPM 415 C conforms to the Overall Migration Standards laid down in 21 CFR 175 - 300 (April 1, 2011) of US - FDA for intended use for contact with potable water.

### FEATURES

- Deeply penetrates and seals the substrate
- Seals hairline cracks upto 0.5mm
- Becomes an integral and homogenous part of the structure
- Can be used as a slurry, dry shake & concrete admix
- Reactivates in the presence of moisture
- Suitable for sewage treatment and water treatment plant, water tanks, concrete pipes and manholes
- Toxic free: safe for contact with potable water
- Suitable for external and internal application for positive and negative side waterproofing

### PHYSICAL PROPERTIES

WPM 415 C @ 27 ± 1°C

Mixed density 1.80 g/cc

Depth of penetration  
DIN 1048 part 5 < 22 mm

Pot life 30 minutes

VOC Content 4.29 g/l

### PACK SIZE

20 kg

### CONSUMPTION

As a slurry Approx. 13 - 16.50 m<sup>2</sup> @ in two coats

As a dry shake Approx. 1.8 kg/m<sup>2</sup>

As a concrete admix Approx. 0.8% - 1.5% by weight of cement

### APPLICATION INSTRUCTIONS

#### a) As a slurry coat

##### Surface Preparation

The surface to be treated must be clean, structurally sound, free from oil, grease, wax, polish, laitance, dust and other barrier materials. All cracks, construction joints, pipe penetration, bore packing and corners shall be treated because commencement of the application.

The concrete to be treated must have an "open" capillary system by means of high pressure water jetting, wet sand blasting or wire brushing.

##### Mixing

Mix 20 kg of WPM 415 C with 6.70 kg of water using suitable slow speed spiral drill to get brushable consistency. Where mixing by weight is not possible, volume mixing can be carried out at site in the ratio of 1 : 3 (water : powder)

##### Application

Pre wet the surface prior to the application. Apply the slurry on the prepared wet surface using brush or roller. The surface shall be protected from foot traffic for 48 hours.

##### Curing

WPM 415 C must be kept moist for a minimum of 48 hours. After initial set, moist curing, using continuous water spray is recommended.

#### b) As a dry shake (For horizontal surfaces)

When the freshly laid concrete has set initially, required amount of WPM 415 C is evenly broadcast and troweled.

#### c) As a concrete admix

Prepare the dilution right before applying. It is important to obtain a homogeneous mixture of WPM 415 C with concrete. Therefore do not add dry powder directly to wet concrete as this may cause clumping and thorough dispersion will not occur.

### CLEANING

WPM 415 C can be removed from tools and equipment by using clean water immediately after use.

### STORAGE AND SHELF LIFE

WPM 415 C has a shelf life of 12 months if kept in a dry, clean store between 5°C and 30°C in the original unopened containers. The product should be protected from frost, away from direct sunlight and sources of heat.

### PRECAUTIONS

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water.

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Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

### DISPOSAL/SPILLAGE

Spillage of any of the product components should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

For further information please refer to the Material Safety Data Sheet.

### CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

### NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products. However, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.



### ARDEX ENDURA (INDIA) PRIVATE LIMITED

an ISO 9001:2015 & ISO 14001:2015 certified company  
Corporate Office & Regd. Office: Unit No. 406 & 407,  
"Brigade Rubix" No. 20, HMT Campus,  
Yeshwanthpur Hobli, Bengaluru - 560013.  
CIN No: U24233KA1997PTC022383 Tel: +91 80 66746500  
Email: customercare@ardexendura.com  
Website: www.ardexendura.com

### Branches

• AHMEDABAD	079 26425310	• HUBBALLI	0836 2970505	• NAGPUR	+919822223743
• AURANGABAD	+918605445577	• HYDERABAD	040 27650293	• PATNA	+919934687909
• BENGALURU:	080 40912934	• INDORE	0731 4021148	• PUNE	+919028811555
• BHUBANESHWAR	0674 2578101	• JAIPUR	0141 2441893	• RAIPUR	0771 4038300
• CALICUT	0495 2740334	• KOLKATA	+919831071084	• SALEM	0427 2271454
• CHENNAI	044 42805544	• LUCKNOW	0522 4043251	• SHIVAMOGGA	+919880605770
• DELHI	011 26384711	• LUDHIANA	0161 2532170	• TRICHY	+919894766109
• ERNAKULAM	0484 2341044	• MANGALURU	0824 2442176	• TRIVANDRUM	0471 2598648
• GOA	0832 2750992	• MUMBAI	022 65133299	• VIJAYAWADA	+918688354587
• GUWAHATI	+917896002188	• MYSURU	+91988000683	• VISAKAPATNAM	0891 6469499