

WP515

WATERPROOFING SLURRY (GENERAL) CEMENTITIOUS WATERPROOFING BY POLYMER AND CRYSTALLISATION

PRODUCT DESCRIPTION

OPTIMIX WP515 WATERPROOFING SLURRY (GENERAL) is a high quality polymer modified cementitious based waterproofing coating. It utilizes a combination of polymer and crystallization technologies to effect a seamless slurry coat that acts as a waterproof barrier and capillary sealer. Suitable for direct applications onto wet or damp substrates **WP515** is suitable for application onto to all mineral and cementitious based substrates and once cured is compatible with most common constructions.



TYPICAL USAGE

- Seal concrete surfaces and elements with minor hairline cracks
- Waterproof locations subject to positive or negative water pressure
- Damp-proof for substrate before application of other moisture sensitive top finishes
- Suitable for bathroom, kitchen, swimming pool, water tank, tunnel, basement, retaining wall, planter, balcony, parapet, etc.
- Free from harmful solvents which facilitate applications at areas with limited ventilation
- For indoor and outdoor applications on walls, columns, slabs and floors

FEATURES AND BENEFITS

- Complies with HKHA General Spec. Section 23.08 cl. 3(g)(i) A1
- Polymer Waterproofing And Bonding
- Capillary Reduction By Crystallization
- Outstanding Waterproof Property
- Vapour Permeable
- Excellent Adhesion To Substrate
- Can Be Applied On Damp Surfaces
- Consistent Quality
- Non-Toxic

TECHNICAL DATA

Product Characteristics	Specification (HKHA GS 23.08 3(g)(i) A1)	OPTIMIX WP515
Product Consistency	--	Trowellable
Compressive Strength at 28 days	> 20 MPa	~ 45 MPa
Flexural Strength at 28 days	--	~ 10 MPa
Bond to Concrete at 28 days	> 1.0 MPa	~ 2.0 MPa
ISAT @ 120min.	< 0.015 ml/m ² ·s	~ 0.002 ml/m ² ·s
Shrinkage @ 28 days	No Cracks	No Cracks
Slant Shear Bond Strength @ 7 days	--	> 25 MPa
Slant Shear Bond Strength @ 28 days	--	> 30 MPa

Product Characteristics	Specification (GB 18445-2012)	OPTIMIX WP515
Coating Impermeability Performance Pressure / Ratio at 28 days	≥ 1.0MPa / ≥ 250%	~ 1.1 MPa / ~ 275%
Substrate Impermeability Improvement Pressure / Ratio at 28 days	≥ 0.8MPa / ≥ 175%	~ 0.8 MPa / ~ 200%

Mixing	OPTIMIX WP515
Water Demand (per 25kg bag)	4.5 – 5.0 L
Wet Density	~ 1,950 kg/m ³

Packaging & Yield	OPTIMIX WP515
Yield	~ 15.3 L
Coverage	1.60 kg/mm/m ²
Packaging	25 kg per bag
Shelf Life	12 months

Note: The above are typical laboratory test results and can vary slightly depending on the ambient and substrate conditions during application.

Environmental Data	
Volatile Organic Compounds (VOC)	≤ 10 g/L
Potential BEAM points	Product is manufactured within 800km of Hong Kong project sites
Packaging Composition	Paper bags incorporating 40% recycled paper

Testing Methods	
Compressive and Flexural Strength	BS 6319 : Part 2 & 3, EN13892 & EN1015
Initial Surface Water Absorption	BS 1881 : Part 208
Impermeability Pressure / Ratio	GB 18445-2012
Bond to Concrete	HKHA MTS Part D 2.1.14
Shrinkage (Coutinho Ring)	HKHA MTS Part D 2.1.6
Slant Shear Bond Strength	BS 6319 : Part 4
VOC Content	USEPA Method 24

Note: The tests were performed according to the national standard or in-house modifications of the corresponding testing procedures.





INSTALLATION GUIDE

(Refer to Method Statement for more details)

SURFACE PREPARATION

Substrate must be clean, free from oil, grease and other contaminants. Pre-treat the substrate with water jet to remove dust and loose particles. **OPTIMIX WP515** can be applied onto damp or slightly wet substrates but ponding or excessive surface water should be removed. No running water is allowed.

MIXING

Mix one bag of **OPTIMIX WP515** dry powder with 4.5 – 5.0L of potable water to achieve the desired consistency. Mechanical mixing with a slow speed drill and paddle is recommended.

Apply the powder to the water and mix for about 5 minutes or until a lump free homogeneous mix is achieved. Allow the mix to stand for (5 minutes) and mix briefly again immediately before use.

APPLICATION

The mixed slurry should be applied by trowel onto the substrate within the working life of the material.

It is recommended to apply the waterproofing slurry in at least 2 coats of approximately 1 mm thick. Apply the first coat onto the substrate evenly in one direction with an action forcing the slurry to seal minor cracks and to cover surface irregularity.

The following coats should be applied after the first coat has hardened sufficiently. Trowel in a perpendicular direction to any trowel marks or surface texture in the underlying coat. This will help to ensure a complete and continuous waterproof membrane.

FINISHING AND CURING

The final coat may be left with a smooth trowel finish or textured to provide a mechanical key for subsequent construction. To achieve a texture the surface can be brushed lightly and carefully with a medium bristle brush just before the surface dries.

The finished surface should be protected and can be cured by light misting with water to improve the performance.

It is recommended to allow 1 to 2 days before other finishing materials or protective layer is applied.

LIMITATIONS

There is no minimum or maximum overcoat time between layers but care should be taken to ensure that the underlying layer is firm enough to receive subsequent layers without damaging the first layer, or in the case of long period between coats, the underlying coat should be wiped clean and free from dust.

HEALTH AND SAFETY

OPTIMIX WP515 is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

STORAGE

Store the products in a cool and dry place with the original unopened bags on pallets with plastic wrapping. Protect from direct sunlight, rainfall and exposure to high humidity conditions. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging and reduce shelf life.



ALTERNATIVE PRODUCTS

- **WP533** Waterproofing Slurry (Semi-Flexible)
- **WP568** Waterproofing Slurry (Flexible)
- **WF578** Waterproofing Colour Finish (Semi-Flexible)



Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.