

FIVE STAR WATERPROOFING COATING PLUS MIGRATING CORROSION INHIBITOR

- Excellent waterproofing barrier
- Effective on negative or positive side
- Excellent resistance to chloride ion penetration
- Protects rebar from corrosion
- Trowel or brush applied
- High bond strength
- Self-curing
- Trafficable surface

PRODUCT DESCRIPTION:

Five Star Waterproofing is a 2-component polymer-modified cementitious waterproofing material that creates a rigid barrier which resists very high water pressure in both positive and negative side applications. This high performance coating is self-curing for greater reliability and has excellent resistance to the penetration of chloride ions. Five Star Waterproofing is applied in one coat by trowel, or in a multi-coat brush application.

USES:

- Concrete and masonry surfaces
- Vertical and horizontal applications
- Base for moisture-sensitive coatings
- Elevators / escalator pits
- Foundations
- Manholes
- Vaults
- Tanks

PACKAGING & COVERAGE:

25kg Polyethylene lined bags of powder and 2 litre bottle of binder

Brush Application: Add 2 to 2.5 litres water; yield approximately 14 litres; 9m²/kit at 1.5mm thick per coat – 2 coats required.

Trowel Application: Add 1 to 1.5 litres water; yield approximately 13 litres; 4.5m²/kit at 3mm thickness

SHELF LIFE:

One year in original, unopened packaging when stored in dry conditions. High relative humidity will reduce the shelf life. Protect from freezing.

TYPICAL PROPERTIES AT 25°C, 3mm THICK

Compressive Strength, ASTM C109	
4 Hours	20.7 MPa
28 Days	48.3 MPa
Bond Strength, ASTM C882	
7 Days	16.5 MPa
Permeability, CRD-C48, 3mm thickness	
Negative side	7.16 x 10 ⁻¹³ cm/sec
Positive side	7.96 x 10 ⁻¹⁴ cm/sec
Chloride Ion Permeability, ASTM C1202, 3mm thickness	
28 Days	Very Low (<1000 coulombs)
Working Time at 25°C	20 Minutes

APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

PLACEMENT GUIDELINES

SCOPE OF WORK (BOQ):

Prepare surfaces and apply Pro-Struct 526-MCI as a 3mm rigid waterproofing barrier, inclusive of surface preparation.

SURFACE PREPARATION:

The surface to be treated must be clean and have an open capillary system to ensure maximum bonding. Pro-Struct 526-MCI may be applied to concrete, brick or blockwork. (Not recommended to be applied onto weak plastered surfaces).

Concrete Surfaces:

All cement laitance, shutter release agent, curing compound and other adhesion reducing substances, i.e. bitumen, grease, paint, must be removed by means of wet or dry grit-blasting, chipping or grinding to expose the well-bonded aggregate in the concrete.

Brick and Blockwork Surfaces:

Any remaining plaster, render or other substances that could inhibit bonding must be removed back to the substrate. Gypsum, remains of wood or other foreign material must be removed by appropriate means. Loose pointing must be routed out and the substrate cleaned thoroughly.

Any water leaks must be stopped with Pro-Struct 548 (see application procedure below):

- Each leaking area must be cut back to sound material, leaving a chase approximately 15mm deep to receive the Pro-Struct 548.
- 1kg of Pro-Struct 548 must be mixed with approximately 0.25 litres of water with a slow speed mixer (mixing time a maximum of 15 seconds).
- Immediately after mixing, Pro-Struct 548 must be applied to the appropriate area by working into place and holding firmly for approximately 2 minutes (rubber gloves should be worn).
- Pressure is to be maintained without disturbing the material until it has set.
- Excess material must be removed by grinding.
- The sealed leaks must be left for 1 hour at 25°C, after which Pro-Struct 526-MCI can be applied on a saturated pre-wetted surface.

WATER REQUIREMENTS:

Pro-Struct 526-MCI is a two-part product consisting of 25kg powder and 2 litres of binder. Potable water requirements depending upon the method of application are as follows:

Brush Application: 25kg Powder plus 2 litres binder, and add between 2 to 2.5 litres of potable water. 1 Kit will yield 9m² in one coat at 1.5mm thick (2 coats required).

Trowel Application: 25kg Powder plus 2 litres binder and add 1 to 1.5 litres of potable water. 1 Kit will yield 4.5m² in a single coat at 3mm thick.

MIXING:

Use a mortar mixer (with moving blades) or heavy-duty mechanical mixer and paddle mixer. Pre-wet all tools and mixer before mixing and pour out excess water. Add the recommended quantity of potable water and liquid binder to the mixer as detailed above.

The dry powder must be added slowly while mixing. Never add more water to bring back the consistency after the material has begun to stiffen.

PRIMING:

The surface must be damp, with no ponding water.

CAUTION: MAY CONTAIN FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRONIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NON-FERROUS TOOLS AND TO WEAR CONDUCTIVE AND NON-SPARKING SHOES.



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APPLICATION:

Pro-Struct 526-MCI can be either brush or trowel applied. The total application thickness should be a minimum of 3mm with no pinholes or voids. The first coat must be textured whilst still plastic to form a key and must also be damp on the surface prior to application of the second coat. The first coat must not be damaged during the application of the second coat, i.e. must have completely hardened (approximately 4 to 8 hours).

Brush Application:

Ensure that all cavities in the surface are filled. The product must be applied in two coats, the second coat being perpendicular to the first, up to the thickness specified. Allow a minimum of 4 hours between coats.

Trowel Application (for maximum protection and smooth finish):

First a scraper coat is applied for maximum adhesion to the substrate, working from the bottom up. Ensure that all cavities in the substrate are filled in order to exclude any trapped air. The minimum thickness of 3mm should then be applied in one application.

Note: In applications where protecting against water pressure (including ground water), it is recommended that the finished thickness of Pro-Struct 526-MCI is a minimum of 3mm. A product thickness of 3mm gives a yield per kit of approximately 4.5m².

CURING:

Freshly completed work should be protected from rain during the first 24 hours. Moisture curing and curing compounds must not be used as the product is self-curing.

PLASTERING:

Surfaces treated with Pro-Struct 526-MCI which are to be plastered must be left to cure for at least 8 hours. At the end of the curing period, prior to the application of plaster, the surface must be primed with Pro-Struct 601/610 or cement bonding agent slurry.

COATINGS:

Prior to the application of a coating directly onto the Pro-Struct 526-MCI, the product must be left to cure for at least 8 hours. The surface should then be primed with one coat of Pro-Struct 689 alkali-resistant primer prior to the application of the decorative coating.

RECOMMENDATIONS:

- Not for use over moving cracks.
- Never exceed the maximum water content as stated on the package or add an amount that will cause segregation.
- Substrate must be saturated but free of excess surface water at time of application. Surface should appear dull, not glossy.
- Temperature of substrate must be between 7°C and 32°C at time of installation.
- For applications thicker than 3mm, contact StonCor Africa Technical Service at 011-254-5500.
- Do not store below 7°C. Protect from freezing.

PRECAUTION:

Contains cementitious material and crystalline free silica. Take appropriate measures to avoid breathing dust. Avoid contact with eyes and contact with skin. In case of contact with eyes, immediately flush with plenty of water for at least 15 minutes. Immediately call a physician. Wash skin thoroughly after handling. Keep product out of reach of children. PRIOR TO USE, REFER TO THE MATERIAL SAFETY DATA SHEET.

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