

## FIVE STAR WATERPROOFING

**EXCELLENT WATERPROOFING BARRIER  
EFFECTIVE ON NEGATIVE OR POSITIVE SITE  
HIGH BOND STRENGTH  
EXCELLENT FREEZE / THAW RESISTANCE  
EXCELLENT RESISTANCE TO CHLORIDE ION  
PENETRATION  
BRUSH, TROWEL, GUNITE OR SPRAY APPLIED  
AVAILABLE AS PRO-STRUCT 526-MCI TO  
COMBAT EMBEDDED REBAR CORROSION**

### APPLICATION AREAS

- Wastewater Treatment Tanks
- Tanks / Secondary Containment
- Building Foundations
- Dams
- Parking Decks
- Mechanical Rooms
- Floors
- Elevator / Escalator Pits
- Tunnels
- Vaults, Pits
- Bridges
- Bridge Decks
- Slabs
- High Traffic Aisles

### DESCRIPTION

Five Star Waterproofing is a patented cementitious waterproofing system that creates a waterproof barrier which can resist extremely high water pressures on either the negative or positive sides of a structure. This unique high performance product utilises a liquid polymer which ensures reliable application under a wide variety of field conditions. Five Star Waterproofing is applied in one coat by trowel or spray, or in a two-coat brush application onto concrete, masonry or rock and can be applied to either the inside or outside of a structure. Five Star Waterproofing can protect both new and existing concrete structures from water damage.

### SPECIFICATION GUIDELINES

All negative and positive side waterproofing shall be performed with Five Star Waterproofing as manufactured by Pro-Struct. The waterproofing shall be mixed and installed according to the Manufacturer's recommendations. No substitutions will be permitted. Technical service is provided by Manufacturer upon request.

### THE ADVANTAGES OF WATERPROOFING OVER DAMPPROOFING

The terms "dampproofing" and "waterproofing" are often confused. A dampproofing material will "resist" the passage of water where there is no hydrostatic pressure, i.e. moist soil or wind-driven rain. Used in hydrostatic applications, dampproofing products are ineffective. In contrast, a

### TYPICAL PROPERTIES AT 23°C

<b>Compressive Strength ASTM C-109</b>	4 Hours – 20.7 MPa 28 Days – 48.3 MPa
<b>Bond Strength ASTM C-882</b>	7 Days – 16.5 MPa
<b>Permeability, CRD C-48 3mm Thickness</b>	7.16 x 10 <sup>-13</sup> cm/sec (negative side) 7.96 x 10 <sup>-14</sup> cm/sec (positive side)
<b>Working Time</b>	15 Minutes
<b>Chloride Ion Permeability ASTM C-1202 – 3mm Thickness</b>	>1000 coulombs

"waterproofing" material must completely block the passage of water under pressure.

Once cured, Five Star Waterproofing will resist positive or negative water pressure. It forms a waterproof barrier that even works on porous surfaces such as a cement block.

### USE FIVE STAR WATERPROOFING INSIDE OR OUT

Five Star Waterproofing may be applied to either side of a concrete structure with equal effectiveness. Five Star Waterproofing's unique "negative side" capability makes waterproof protection available from the inside, even after construction is completed. Large holding tanks, equipment pits and even dams can be effectively protected by applying Five Star Waterproofing products.

### TECHNICAL SERVICES

StonCor Africa offers technical service covering specifications, architectural details and on-site service. For guidance and recommendations in the proper selection and use of our products, contact one of our Technical Consultants. Refer to MCI-2006NS for technical data on Pro-Struct 526-MCI.

# 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.

## APPLICATION

Five Star Waterproofing can be reliably applied in temperatures from 10°C to 35°C. Five Star's unique self-curing composition eliminates most curing problems which saves time and money. Five Star Waterproofing will bond to sound concrete no matter which application method you choose. And newly protected surfaces may be put in service in as little as 24 hours.

## WATER REQUIREMENT FOR DIFFERENT APPLICATIONS BRUSH APPLICATION

25kg Powder to 2 litres binder, add between 2 to 2.5lt of water. Kit will do 9m<sup>2</sup> in 1 coat, 1.5mm thick.

## TROWEL APPLICATION

25kg Powder to 2 litres binder, add 1 to 1.5lt water. Kit will do 4.5m<sup>2</sup> in 1 coat, 3mm thick.

## PLACEMENT GUIDELINES SURFACE PREPARATION

Before applying Five Star Waterproofing all surfaces must be clean, structurally sound, free of oil, grease, laitance, loose material and other foreign contaminants. Mechanically roughen smooth surfaces to ensure good bonding (medium sandpaper profile or rougher). Clean thoroughly with liberal quantities of potable water, leaving surface damp.

## MIXING

Use a mortar mixer (with moving blades) or heavy duty drill and paddle mixer. Pre-wet all tools and mixer before mixing and pour out excess water. Add the recommended amount of potable water and/or liquid to the mixer as directed in the Manufacturer's instructions. Then add the dry powder slowly while mixing. Never exceed the maximum water limits. Mix in the manner and for the length of time as directed in the Manufacturer's published instructions. Never re-temper the mix. Never add more water to bring back the consistency after material has begun to stiffen. Once material has been placed, do not overwork or over-trowel. All equipment should be thoroughly flushed clean with water before the waterproofing material has reached its initial set.

## APPLICATION

### NORMAL PROTECTION – BRUSH APPLICATION

Apply a minimum of two thick brush coats. Total application thickness should be a minimum of 3,0mm with no pinholes or voids. Allow Five Star Waterproofing to completely harden (4-8 hours) before applying second coat. Thoroughly dampen hardened waterproofing before applying additional coats.

### MAXIMUM PROTECTION – TROWEL, GUNITE & SPRAY APPLICATION

Apply Waterproofing in one coat by trowel or spray to at least 3mm thickness, completely filling all holes, pores and voids.

### REFERENCE SAMPLE

A trial reference sample should be installed by the applicator prior to start of contract to ensure correct workmanship.

### CURING AND PROTECTION

Five Star Waterproofing is a self-curing product under normal field conditions. Five Star Waterproofing must be protected from freezing, wind, excess heat, rain, hydrostatic pressures and traffic until it reaches its normal 24-hour strength.

### STORAGE AND HANDLING

Five Star Waterproofing should be stored in a cool, dry place in accordance with the recommendations of the Manufacturer. Do not store in temperatures below 7°C. Protect from freezing. Extended storage may affect performances. Please contact the Manufacturer for further information.

### LIMITATIONS

- Never exceed the maximum water content as stated on the package.
- Not to be used for grouting beneath baseplates.
- Placement shall be continuous to avoid cold joints.
- Material can only be applied when substrate temperatures are between 10-35°C.

### CAUTION

Contains cementitious materials 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.

**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 NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES**



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