



# WATERPROOFING

High Performance Waterproofing

## PRODUCT DESCRIPTION

Five Star® Waterproofing is a polymer-modified cementitious waterproofing material that creates a rigid barrier which resists very high water pressures in both positive and negative side applications. This high performance product 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.

## ADVANTAGES

- Effective on negative and positive side
- Excellent resistance to chloride ion penetration
- Self-curing
- Trowel or brush applied

## USES

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

## PACKAGING AND YIELD

Five Star Waterproofing is a two component system consisting of 50 lbs (22.7 kg) of dry material and a one-half gallon (1.9 liter) plastic container of Five Star Waterproofing Liquid packaged in a plastic pail and is available in a unit yielding coverage of approximately 42 square feet (3.9 sq m) when troweled to a 1/8 inch (3 mm) thickness, or 85 square feet (7.9 sq m) when brushed to a 1/16 inch (1.5 mm) thickness. No allowance has been made for surface roughness, irregularities, waste, or spillage.

## SHELF LIFE

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

<b>TYPICAL PROPERTIES AT 70°F (21°C)</b>	
<b>Compressive Strength, ASTM C 109</b>	
4 Hours	3000 psi (20.7 MPa)
28 Days	7000 psi (48.3 MPa)
<b>Bond Strength, ASTM C 882</b>	
7 Days	2400 psi (16.5 MPa)
<b>Permeability, CRD-C 48</b> 1/8 inch (3 mm) thickness	
Negative Side	$7.16 \times 10^{-13}$ cm/sec
Positive Side	$7.96 \times 10^{-14}$ cm/sec
<b>Chloride Ion Permeability, ASTM C 1202</b> 1/8 inch (3 mm) thickness	
28 Days	Very Low (<1000 Coulombs)
<b>Working Time at 70°F (21°C)</b>	20 minutes

*\*The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result. Test methods are modified where applicable.*

## **PLACEMENT GUIDELINES**

1. **SURFACE PREPARATION:** All surfaces must be clean, structurally sound, free of oil, grease, laitance, loose materials and other contaminants. Mechanically roughen concrete surfaces to a medium sandpaper profile or rougher. Soak surfaces thoroughly with liberal quantities of potable water, leaving surface damp but free of excess water. Surfaces must be between 45°F and 90°F (7°C and 32°C) at time of application.
2. **MIXING:** Condition materials to between 45°F and 80°F (7°C and 27°C). Thoroughly mix Five Star® Waterproofing with a mortar mixer (stationary barrel with moving blades) or a drill and paddle mixer using all the Five Star Waterproofing Liquid provided and only enough water to reach desired consistency. Never exceed the maximum allowable mixing water as stated on the container or add an amount that will cause segregation. Do not mix more material than can be applied in 20 minutes.
3. **METHODS OF PLACEMENT:** Brush Application: Apply a minimum of two thick brush coats. Total application thickness should be a minimum of 1/16 inch (1.6 mm) with no pinholes or voids. Allow Five Star Waterproofing to completely harden (four to eight hours) before applying next coat. Thoroughly dampen hardened waterproofing before applying additional coats.  
**Maximum Protection** - Apply waterproofing in one coat by trowel to 1/8 inch (3 mm) thickness, completely filling all holes, pores and voids.
4. **POST-PLACEMENT PROCEDURES:** Five Star Waterproofing is a self-curing product under normal field conditions. Five Star Waterproofing must be protected from freezing, rain, hydrostatic pressure, and traffic until it reaches its normal 24 hour strength.
5. **CLEAN UP:** All tools and equipment may be cleaned with water before material hardens.

**NOTE: PRIOR TO APPLICATION, READ ALL PRODUCT PACKAGING THOROUGHLY.** For more detailed placement procedures, refer to Design-A-Spec™ installation guidelines or call the Five Star Engineering and Technical Service Center at (800) 243-2206.

## **CONSIDERATIONS**

- 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 45°F and 90°F (7°C and 32°C) at time of installation.
- For applications thicker than 1/4 inch (6 mm), call the Five Star Engineering and Technical Service Center at (800) 243-2206.
- Do not store below 45°F (7°C). Protect from freezing.

**CAUTION** Contains cementitious material and crystalline silica. International Agency for Research on Cancer has determined that there is sufficient evidence for the carcinogenicity of inhaled crystalline silica to humans. 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 MATERIAL SAFETY DATA SHEET.**

For worldwide availability, additional product information and technical support, contact your local Five Star distributor, local sales representative, or you may call Five Star's Engineering and Technical Service Center at (800) 243-2206.

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**Five Star Products, Inc.**  
**Corporate Headquarters**  
750 Commerce Drive  
Fairfield, CT 06825 USA  
Tel: 203-336-7900 • Fax: 203-336-7930  
<http://www.fivestarproducts.com>



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