



FIVE STAR® SPECIAL GROUT 550

High Temperature Application Precision Nonshrink Grout

PRODUCT DESCRIPTION

Five Star® Special Grout 550 is the first cement-based, non-shrink grout formulated for grouting at temperatures up to 115°F with no ice or cold water. It is a high performing, versatile, reliable, hot weather, high sulfate resistant, precision grout. The advanced technology of this patented product combines the following advantages that no other manufacturer can offer. Five Star Special Grout 550 meets the performance requirements of ASTM C 1107-02 and CRD-C 621-93 specifications for nonshrink grout grades A, B, and C over a wide temperature range and a long working time.

ADVANTAGES

- Air release technology
- Precision nonshrink
- Highest effective bearing area
- Contains Devoider®
- Excellent placeability up to 115°F
- Long working time
- High sulfate resistance
- High salt water resistance
- No ice or cold water required

USES

- Grouting large, heavy operating equipment in extreme hot weather
- Grouting structural columns in extreme hot weather
- Grouting anchors in extreme hot weather
- Grouting precast and prestressed panels in extreme hot weather

TECHNICAL SUPPORT

Five Star Products maintains the industry's foremost Technical Support Group:

- Over 50 years of experience in precision grouting
- Technical Center staffed with field experienced application specialists
- Design-A-Spec™ for engineering specification assistance
- Experienced representatives for field service
- Corporate research laboratory available to customize products for unique applications

PACKAGING AND YIELD

Five Star Special Grout 550 is packaged in heavy-duty, polyethylene lined bags containing 100 lb (45.4 kg), yielding approximately 0.9 cubic foot (25.5 liters) or 50 lb. (22.7 kg) yielding approximately 0.45 cubic feet (12.7 liters) of hardened material at maximum water.

SHELF LIFE

One year in original unopened packaging when stored in dry conditions. Higher humidity will reduce the shelf life.

TYPICAL PROPERTIES AT 73°F (23°C)	
Early Height Change, ASTM C 827	0.0 to 4.0%
Hardened Height Change, ASTM C 1090	0.0 to 0.3%
Effective Bearing Area	95%
Bond Strength, ASTM C 882 / 28 Days	2000 psi (13.8 MPa)
Pull-out Strength, Shear Bond with #5 deformed bar, 7 days	2400 psi (16.6 MPa)
Compressive Strength, ASTM C 942 (C 109 Restrained)	
1 Day	2000 psi (13.8 MPa)
7 Days	5000 psi (34.5 MPa)
28 Days	6500 psi (44.9 MPa)

The data shown above reflect 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 in contact with Five Star® Special Grout 550 shall be free of oil, grease, laitance and other contaminants. Concrete must be clean, sound and roughened to ensure a good bond. Soak concrete surface for 8 to 24 hours prior to application with liberal quantities of potable water, leaving the concrete saturated and free of standing water.
2. **MIXING:** Mix Five Star Special Grout 550 thoroughly for approximately five minutes to a uniform consistency with a mortar mixer. A drill and paddle mixer is acceptable for single bag mixes. Mix Five Star Special Grout 550 with 7 to 11 quarts potable water per 100 lb. bag. Working time is approximately 45 minutes. Follow printed instructions on the package.
3. **METHODS OF PLACEMENT:** Five Star Special Grout 550 may be dry packed, poured or pumped into place. Minimum placement thickness for Five Star Special Grout 550 is one inch. For pours over six inches in depth Five Star Special Grout 550 should be extended with a clean washed coarse aggregate meeting the requirements of ASTM C 33. Contact Five Star Products Technical Center at (800) 243-2206 for extension guidelines.
4. **POST-PLACEMENT PROCEDURES:** Five Star Special Grout 550 shall be wet cured for a minimum of three days, or coated with an approved curing compound after a minimum 24 hour wet cure. In-service operation may begin immediately after the required grout strength has been reached.
NOTE: PRIOR TO APPLICATION, READ ALL PRODUCT PACKAGING THOROUGHLY. For more detailed placement procedures, refer to Design-A-Spec™ or call the Five Star Products Technical Center at (800) 243-2206.

LIMITATIONS

- Never exceed the maximum water content as stated on the bag or add an amount that will cause segregation.
- For placements thinner than one inch (25 mm) or greater than three inches (75 mm), call the Five Star Products Technical Center.
- Construction practices dictate concrete foundation should achieve its design strength before grouting.
- Do not hand mix Five Star Special Grout 550.

CAUTION

Contains cementitious material and crystalline silica. International Agency for Research on Cancer has evaluated 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 Technical Center at (800) 243-2206.

WARRANTY: "FIVE STAR PRODUCTS, INC. (FSP) PRODUCTS ARE MANUFACTURED TO BE FREE OF MANUFACTURING DEFECTS AND TO MEET FSP'S CURRENT PUBLISHED PHYSICAL PROPERTIES WHEN APPLIED IN ACCORDANCE WITH FSP'S DIRECTIONS AND TESTED IN ACCORDANCE WITH ASTM AND FSP STANDARDS. HOWEVER, SHOULD THERE BE DEFECTS OF MANUFACTURING OF ANY KIND, THE SOLE RIGHT OF THE USER WILL BE TO RETURN ALL MATERIALS ALLEGED TO BE DEFECTIVE, FREIGHT PREPAID TO FSP FOR REPLACEMENT. THERE ARE NO OTHER WARRANTIES BY FSP OF ANY NATURE WHATSOEVER, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS PRODUCT. FSP SHALL NOT BE LIABLE FOR DAMAGES OF ANY SORT, INCLUDING PUNITIVE, ACTUAL, REMOTE OR CONSEQUENTIAL DAMAGES, RESULTING FROM ANY CLAIMS OF BREACH OF CONTRACT, BREACH OF ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR FROM ANY OTHER CAUSE WHATSOEVER. FSP SHALL ALSO NOT BE RESPONSIBLE FOR USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT HELD BY OTHERS."



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