Sure-Grip High Performance Grout®

Cement-Based Grout

TECHNICAL DATA SHEET

DESCRIPTION

Sure-Grip High Performance Grout is a non-shrink, non-corrosive, non-metallic cementitious grout designed to provide a controlled, positive expansion and to ensure an excellent bearing area. Sure-Grip High Performance Grout can be mixed in a fluid or flowable consistency.

USE

Sure-Grip High Performance Grout is an ideal product for interior or exterior grouting of architectural and structural precast concrete components, structural column base plates, machinery bases, anchoring bolts, cable anchorages, dowels, bearing pads, keyway joints, crane rails or anywhere a high quality engineered grout is required.

FEATURES

- High compressive strength quickly – 5,000 psi in one day
- Less downtime for machines/finish projects sooner
- High ultimate compressive strength – 10,000 psi in 28 days
- Non-metallic/non corrosive
- High density
- Low water requirements
- High fluidity/pourable/pumpable
- Interior/exterior applications
- Approved by numerous state DOTs
- Tested and Certified by WQA to NSF/ANSI/CAN 61
- Tested and compliant per CDPH V1.2

PROPERTIES

Corps of Engineers Specification for non-shrink grout: CRD-C 621

ASTM C1107: Specification for non-shrink grout

ASTM C827: Sure-Grip Grout yielded a controlled positive expansion Expansion
Hardened Height Change 1.4%

Expansion - ASTM C1090:
1 day-0.07%
3 days-0.07%
14 days-0.08%
28 days-0.08%
Shrinkage at 56 days 0.00%

Time of Set by Vicant Needle- ASTM C191 (Fluid):
Initial Time Set 5 hours, 30 minutes
Final Time Set 7 hours, 50 minutes

Freeze-Thaw Resistance per ASTM C666
Durability Factor at 300 Cycles (Fluid):
Greater than 98%

Test Results

ASTM C109, “Standard Test Method for Compressive Strength of Hydraulic Cement Mortars"

	@ 1 Day		@ 3 Days		@ 7 Days		@28 Days	
Fluidity	PSI	MPa	PSI	MPa	PSI	MPa	PSI	MPa
Drypack	10,500	72.3	10,750	74.1	11,000	75.8	12,500	86.1
Flowable	6,000	41.3	8,000	55.1	8,200	56.5	10,000	68.9
Fluid	4,500	31.1	6,500	44.8	7,000	48.2	9,000	62.0

Note:
The data shown is typical for controlled laboratory conditions. Reasonable variation from these results can be expected due to interlaboratory precision and bias. When testing the field mixed material, other factors such as variations in mixing, water content, temperature and curing conditions should be considered.

Estimating Guide

Yield (flowable consistency): 0.42 cu. ft./50 lbs. (0.011 cu. m/22.7 kg) bag 0.57 cu. ft./per 50 lbs. (0.015 cu. m/22.7 kg) extended with 25 lbs. (11.34 kg) of washed 3/8 in. (1 cm) pea gravel

Packaging

PRODUCT CODE	PACKAGE	SIZE	
		lbs	kg
67440	Bag	50	22.67
122964	Supersack	3,000	1,360.77

STORAGE

Store in a cool, dry area free from direct sunlight. Shelf life of unopened bags, when stored in a dry facility is 12 months. Excessive temperature differential and /or high humidity can shorten the shelf life expectancy.

Surface Preparation:

Thoroughly clean all contact surfaces. Existing concrete should be strong and sound. Surface should be roughened to insure bond. Metal base plates should be clean and free of oil and other contaminants. Maintain contact areas between 45°F (7°C) and 90°F (32°C) before grouting and during curing period.

All surfaces to be grouted should be in a saturated surface-dry (SSD) condition with no standing water on the surface. Thoroughly wet concrete contact area prior to grouting, keep wet and remove all surface water just prior to placement.

For base plate grouting, seal forms to prevent water or grout loss. Surface preparation in accordance with ACI is recommended. On the placement side, provide an angle in the form or headbox high enough to assist in grouting and to maintain head pressure on the grout during the entire grouting process. Forms should be at least 1 in. (2.5 cm) higher than the bottom of the base plate.

Water Requirements:
Water per 50 lbs. (22.7 kg) Bag
Drypack 2.5 quarts (2.4 L)
Flowable 3.25 quarts (3.1 L)
Fluid 4.00 quarts (3.8 L)

Mixing
A mechanical mixer with rotating blades like a mortar mixer is best. Small quantities can be mixed with a drill and paddle. When mixing less than a full bag, always first agitate the bag thoroughly so that a representative sample is obtained. Place approximately 3/4 of the anticipated mix water into the mixer and add the grout mix, adding the minimum additional water necessary to achieve desired consistency. Mix for a total of five minutes to ensure uniform consistency. For placements greater than 3 in. (7.6 cm), up to 25 lbs. (11.34 kg) of washed 3/8 in. (1 cm.) pea gravel must be added to each 50 lb. (22.7 kg) bag of grout. The approximate working time (pot life) is 30 minutes but will vary with ambient conditions. * For large area placements or depths exceeding 6", call Dayton Superior Technical Services.

For hot weather conditions (greater than 85°F [29°C]) mix with cold water (approximately 40°F [4°C]). For cold weather conditions (less than 50°F [10°C]) mix with warm water (approximately 90°F [29°C]). For additional hot and cold weather applications, contact Dayton Superior.

Placement:
Grout should be placed preferably from one side using a grout box to avoid entrapped air pockets. Grout should not be over worked which causes segregation. Provide vent holes where necessary. Forms must be sealed to prevent water or grout loss. When possible, grout bolt holes first. Placement and consolidation should be continuous for any one section of the grout. When nearby equipment causes vibration of the grout, such equipment should be shut down for a period of 24 hours (@73°F, 23°C). Forms may be removed when grout is completely selfsupporting. Cut away areas where grout excessively restricts movement of steel, i.e., edges of base plates, etc. For best results, grout should extend downward at a 45° angle from the lower edge of the steel base plates or similar structures.

CURING
Exposed grout surfaces must be cured. Dayton Superior recommends using a Dayton Superior curing compound, cure & seal or a wet cure for 3 days. Maintain the temperature of the grout and contact area at 45°F (7°C) to 90°F (32°C) for a minimum of 24 hours

CLEAN UP
Use clean water. Hardened material will require mechanical removal methods.

LIMITATIONS

FOR PROFESSIONAL USE ONLY
Do not re-temper after initial mixing.
Do not add other cements or additives.
Setting time for the Sure-Grip High Performance Grout will slow during cooler weather, less than 50°F (10°C) and speed up during hot weather, greater than 80°F (27°C).
Not for use with uncoated aluminum.
Prepackaged material segregates while in the bag, thus when mixing less than a full bag it is recommended to first agitate the bag to assure it is blended prior to sampling.

PRECAUTIONS

READ SDS PRIOR TO USING PRODUCT

- Product contains Crystalline Silica and Portland Cement – Avoid breathing dust – Silica may cause serious lung problems
- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield)

- Keep out of the reach of children
- Do not take internally
- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed.
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements

MANUFACTURER

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WARRANTY

Dayton Superior Corporation ("Dayton") warrants for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Dayton, the product is free of manufacturing defects and conforms to Dayton's product properties in force on the date of acceptance by Dayton of the order. Dayton shall only be liable under this warranty if the product has been applied, used, and stored in accordance with Dayton's instructions, especially surface preparation and installation, in force on the date of acceptance by Dayton of the order. The purchaser must examine the product when received and promptly notify Dayton in writing of any non-conformity before the product is used and no later than 30 days after such non-conformity is first discovered. If Dayton, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only a Dayton officer is authorized to modify this warranty. The information in this data sheet supersedes all other sales information received by the customer during the sales process. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

Dayton shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, its obligations under any contract for sale of product, even if Dayton could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this contract, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.