

SikaGrout® 212

High performance, cementitious grout

Description	<p>SikaGrout 212 is a non-shrink, cementitious grout with a unique 2-stage shrinkage compensating mechanism. It is non-metallic and contains no chloride.</p> <p>With a special blend of shrinkage-reducing and plasticizing/water-reducing agents, SikaGrout 212 compensates for shrinkage in both the plastic and hardened states. A structural grout, SikaGrout 212 provides the advantage of multiple fluidity with a single component. SikaGrout 212 meets ASTM C-1107 (Grade C).</p>
Where to Use	<ul style="list-style-type: none"> ■ Use for structural grouting of column base plates, machine base plates, anchor rods, bearing plates, etc. ■ Use on grade, above and below grade, indoors and out. ■ Multiple fluidity allows ease of placement: ram in place as a dry pack, trowel-apply as a medium flow, pour or pump as high flow.
Advantages	<ul style="list-style-type: none"> ■ Easy to use. . . just add water. ■ Multiple fluidity with one material. ■ Non-metallic, will not rust or stain. ■ Low heat build-up. ■ Excellent for pumping: Does not segregate. . . even at high flow. No build-up on equipment hopper. ■ Superior freeze/thaw resistance. ■ Resistant to oil and water. ■ Meets ASTM C-1107 (Grade C). ■ Shows positive expansion when tested in accordance with ASTM C-827. ■ SikaGrout 212 is USDA approved.
Coverage	Approximately .44 cu. ft./bag at high flow.
Packaging	50-lb. multi-wall bags; 36 bags/pallet.
How to Use	
Surface Preparation	<p>Remove all dirt, oil, grease, and other bond-inhibiting materials by mechanical means. Anchor bolts to be grouted must be de-greased with suitable solvent. Concrete must be sound and roughened to a CSP 4 or higher to promote mechanical adhesion. Prior to pouring, surface should be brought to a saturated surface-dry condition. Steel should be cleaned and prepared thoroughly by blast cleaning to a white metal finish. Follow standard industry and Sika guidelines for use as an anchoring epoxy.</p> <p>For pourable grout, construct forms to retain grout without leakage. Forms should be lined or coated with bond-breaker for easy removal. Forms should be sufficiently high to accommodate head of grout. Where grout-tight form is difficult to achieve, use SikaGrout 212 in dry pack consistency.</p>

Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

Shelf Life	One year in original, unopened bags.			
Storage Conditions	Store dry at 40°-95°F (4°-35°C).			
Product Conditioning	Condition material to 65°-75°F before using.			
Color	Concrete gray			
Flow Conditions (ASTM C-109, Plastic & Flowable; ASTM C-939, Fluid)		Plastic	Flowable	Fluid
Typical Water Requirements		6 pt.+	6.5 pt.	8.5 pt.
Set Time (ASTM C-266)	Initial	3.5-4.5 hr.	4.0-5.0 hr.	4.5-6.5 hr.
	Final	4.5-5.5 hr.	5.5-6.5 hr.	6.0-8.0 hr.
Tensile Splitting Strength, psi (ASTM C-496)	28 day	600(4.1 MPa)	575 (3.9 MPa)	500 (3.4 MPa)
Flexural Strength, psi (ASTM C-293)	28 day	1,400 (9.6 MPa)	1,200 (8.2 MPa)	1,000 (6.8 MPa)
Bond Strength, psi (ASTM C-882 modified)	28 day	2,000(13.7 MPa)	1,900 (13.1 MPa)	1,900 (13.1 MPa)
Hardened concrete to plastic grout	28 day	+0.021%	+0.056%	+0.027%
Expansion % (ASTM C-1090)	28 day			
Compressive Strength, psi (ASTM C-942)	1 day	4,500 (31 MPa)	3,500 (24.1 MPa)	2,700 (18.6 MPa)
	7 day	6,100 (42 MPa)	5,700 (39.3 MPa)	5,500 (37.9 MPa)
	28 day	7,500 (51.7 MPa)	6,200 (42.7 MPa)	5,800 (40 MPa)

Mixing	<p>Mix manually or mechanically. Mechanically mix with low-speed drill (400-600 rpm) and Sika mixing paddle or in appropriately sized mortar mixer.</p> <p>Make sure all forming, mixing, placing, and clean-up materials are on hand. Add appropriate quantity of clean water to achieve desired flow. Add bag of powder to mixing vessel. Mix to a uniform consistency, minimum of 2 minutes. Ambient and material temperature should be as close as possible to 70°F. If higher, use cold water; if colder, use warm water.</p> <p>Product Extension: For deeper applications, SikaGrout 212 (plastic and flowable consistencies only) may be extended with 25 lbs. of 3/8" pea gravel. The aggregate must be nonreactive, clean, well-graded, saturated surface dry, have low absorption and high density, and comply with ASTM C33 size number 8 per Table 2. Add the pea gravel after the water and SikaGrout 212.</p>
Application	<p>Within 15 minutes after mixing, place grout into forms in normal manner to avoid air entrapment. Vibrate, pump, or ram grout as necessary to achieve flow or compaction. SikaGrout 212 must be confined in either the horizontal or vertical direction leaving minimum exposed surface. SikaGrout 212 is an excellent grout for pumping, even at high flow. For pump recommendations, contact Technical Service. Wet cure for a minimum of 3 days or apply a curing compound which complies with ASTM C-309 on exposed surfaces.</p>
Tooling and Finishing	<p>After grout has achieved final set, remove forms, trim or shape exposed grout shoulders to designed profile.</p>
Limitations	<ul style="list-style-type: none"> ■ Minimum ambient and substrate temperature 40°F and rising at time of application. ■ Minimum application thickness: 1/2 in. ■ Typical maximum application thickness (neat) is 2", however, thicker applications can be achieved. Contact Sika's Technical Services Department (800-933-7452) for further information. ■ Do not use as a patching or overlay mortar or in unconfined areas. ■ Material must be placed within 15 minutes of mixing. ■ As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur Hi-Mod 32.
Caution	<p>WARNING: IRRITANT. Contains Quartz (SiO₂) (CAS:14808-60-7) and Portland Cement (CAS:65997-15-1). Causes skin/respiratory tract irritation. Causes severe eye irritation. May cause eye injury, effect may be delayed. Harmful if swallowed.</p> <p>WARNING. This product contains a chemical known in the State of California to cause cancer.</p>
First Aid	<p>Eyes - Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin - Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation - remove to fresh air. Ingestion - Do not induce vomiting. Dilute with water. Contact physician. IN ALL CASES CONTACT A PHYSICIAN IMMEDIATELY IF SYMPTOMS PERSIST.</p>
Handling and Storage	<p>Suspect carcinogen - contains portland cement and crystalline silica. Skin and eye irritant. Avoid breathing dust. May cause delayed lung injury (silicosis). IARC lists crystalline silica as having sufficient evidence of carcinogenicity in laboratory animals and limited evidence of carcinogenicity in humans. NTP also lists crystalline silica as a suspect carcinogen.</p> <p>Avoid direct eye contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent contact with skin or eyes. Use only in well ventilated areas. Open doors and windows during use. Use properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and laundry before reuse.</p>
Clean Up	<p>Use personal protective equipment (chemical resistant goggles/gloves/clothing). Without direct contact, sweep up spilled or excess product and place in suitable sealed container. Dispose of in accordance with current applicable local, state and federal regulations. Uncured material can be removed with water. Cured material can only be removed mechanically.</p>

KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY

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