

# SikaGrout® 528 SF

High performance, sand-free, cementitious grout with bleed resistance

<b>Description</b>	SikaGrout Sand Free is a non-shrink, non metallic, cementitious grout with a unique 2-stage shrinkage compensating mechanism. With a special blend of shrinkage-reducing and plasticizing/water-reducing agents, SikaGrout Sand Free compensates for shrinkage in both the plastic and hardened states.
<b>Where to Use</b>	<ul style="list-style-type: none"><li>■ Use to grout and fill or repair voids in concrete</li><li>■ Use for grouting tight clearances.</li></ul>
<b>Advantages</b>	<ul style="list-style-type: none"><li>■ Sand free</li><li>■ Does not contain aluminum powder nor any components which generate hydrogen gas, carbon dioxide or oxygen.</li><li>■ Enhanced with undensified silica fume for low permeability.</li><li>■ Non-metallic, will not stain or rust.</li><li>■ Bleed resistant, even at high flow.</li><li>■ Low heat build-up.</li><li>■ Non-corrosive.</li></ul>
<b>Coverage</b>	Approximately 0.48 cu. ft./bag. Use between 11.5 to 12.5 pints of water per 50 lb. bag in order to achieve the proper flow. Do not exceed 12.5 pints of water per 50 lb. bag.
<b>Packaging</b>	Multi-wall bags; 50 lbs. per bag.

## How to Use

### 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.

<b>Shelf Life</b>	Six months in original, unopened bags.
<b>Storage Conditions</b>	Store dry at 40°-95°F (4°-35°C). For best results, it is suggested to condition material to 65°-75°F before using.
<b>Wet Density (ASTM C-138)</b>	Approximately 125 lbs. per cf.
<b>Volume Change (ASTM C-1090)</b>	<b>24 hours:</b> 0.0% shrinkage <b>28 days:</b> between 0 and +0.2% expansion
<b>Expansion (ASTM C-940)</b>	<b>3 hours:</b> between 0.0 and +2.0%
<b>Compressive Strength (ASTM C-942)</b>	<b>1 day</b> 2,000 psi (13.8 MPa) <b>3 days</b> 5,000 psi (34.5 MPa) <b>7 days</b> 7,000 psi (48.3 MPa) <b>28 days</b> 8,000 psi (55.2 MPa)
<b>Initial Set (ASTM C-953)</b>	Approximately 3 to 12 hours
<b>Fluidity Test (ASTM C-939 Modified per FL</b>	<b>Immediately after mixing</b> 7-20 seconds
<b>Dot Section 938 and PTI Section 4.4.5.2)</b>	<b>30 minutes after mixing</b> 7-20 seconds see Mixing section for clarification on flow testing
<b>Bleeding (ASTM C-940 Modified per FL</b>	4 hours 0.0%
<b>Dot Wick Induced Bleed Test)</b>	
<b>Permeability (ASTM C-1202 modified per</b>	<b>28 days</b> Less than 2500 Coulombs
<b>Electrical Resistivity (ASTM C-1202)</b>	<b>28 days</b> Less than 10,000 ohm cm
<b>Accelerated corrosion test (reference FL</b>	<b>Time to Corrosion Control</b> 344 hours
<b>DOT Specification Section 938-6)</b>	
SikaGrout Sand Free greater than 1,000 hrs. Independent lab results available upon request.	

Construction



**PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT [HTTP://USA.SIKA.COM/](http://USA.SIKA.COM/) OR BY CALLING SIKA'S TECHNICAL SERVICE DEPARTMENT AT 800.933.7452 NOTHING CONTAINED IN ANY SIKA MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH SIKA PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.**

## How to Use

### Surface Preparation

Remove all dirt, oil, grease, and other bond-inhibiting materials by mechanical means. Concrete must be sound and roughened to promote mechanical adhesion. Prior to pouring, surface should be brought to a saturated surface-dry condition.

**Forming:** Ensure any forms will retain grout without leakage.

### Mixing

For best results use a colloidal mixer similar to ChemGrout® CG-600 series or other type of high shear mixer at approximately 1800 rpm. Mix for minimum of 3 minutes after the addition of the last bag or until a homogeneous mix is achieved. Continue to agitate material in the holding hopper to achieve best flow. Alternatively, for quantities less than 1 bag, mechanically mix with high-speed drill (2500 rpm) and Sika jiffy paddle for a minimum of 6 minutes. Method of mixing may significantly affect the material properties, particularly flow. At higher temperatures and/or water amounts near upper range of maximum 12.5 pints, the grout will be less thixotropic. Therefore, it may be more appropriate to measure the flow using the standard flow cone test (ASTM C-939). The preferred efflux time is between 15-30 seconds under these conditions. Project specific testing by the engineer is recommended to ensure that the mixing and placement methods result in the specified requirements. Add appropriate quantity of clean potable water. Add bag of material to mixing vessel. Start by using 11.5 pints of water per 50 lb. bag of material. As with any cementitious product most properties are best when the least mixing water is used. Only add additional water as needed up to a total maximum of 12.5 pints (DO NOT EXCEED) per 50 lb. bag in order to achieve the flow specified on the technical data sheet. Ambient and material temperature should be as close as possible to 70°F. If higher, use cold water; if colder, use warm water.

### Application

Make sure all forming, mixing, placing, and clean-up materials are on hand. The grout shall be used within 60 minutes from the start of mixing. A mock-up should be completed on-site and inspected by the engineer to ensure that the placement means and methods yield the specified results.

### Limitations

- Minimum ambient and substrate temperature 40°F and rising at time of application.
- Maximum ambient and substrate temperature is 100°F at the time of placement.
- Minimum application thickness: 1/8 in.
- Do not use as a patching or overlay mortar or in unconfined areas.
- Material must be placed within 60 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 32 Hi-Mod.
- Do not exceed 12.5 pints of water when mixing grout.
- Do not use in post tensioning applications

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

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at <http://usa.sika.com/> or by calling Sika's Technical Service Department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

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