

SikaGrout® 300 PT

High performance, bleed resistant, sand-free, cementitious grout

Description	SikaGrout 300 PT is a non-shrink, non metallic, cementitious grout with a unique 2-stage shrinkage compensating mechanism. It meets the PTI standard of <0.08% total chlorides by weight of cementitious material when tested as per ASTM C-1152. With a special blend of shrinkage-reducing and plasticizing/water-reducing agents, SikaGrout 300 PT compensates for shrinkage in both the plastic and hardened states.
Where to Use	<ul style="list-style-type: none">■ Use for horizontal and vertical grouting of ducts within bonded, post-tensioned structures.■ Use to grout and fill or repair voids within ducts of post-tensioning strands for corrosion protection.■ Use for grouting tight clearances.
Advantages	<ul style="list-style-type: none">■ Sand-free allows filling and repairing of voids within ducts of post-tensioned structures.■ Does not contain aluminum powder nor any components which generate hydrogen gas, carbon dioxide or oxygen.■ Enhanced with undensified silica fume for low permeability.■ Easy to use...just add clean, potable water.■ Non-metallic, will not stain or rust.■ Bleed resistant, even at high flow.■ Low heat build-up.■ Excellent for pumping: Does not build up on equipment hopper.■ Non-corrosive.■ Superior freeze/thaw resistance.
Coverage	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.
Packaging	50 lb. multi-wall bags

Typical Data (Material and curing conditions @ 73°F and 50% R.H. Water used: 11.5 to 12.5 pints per 50 lb. bag)

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	Six months in original, unopened bags.
Storage Conditions	Store dry at 40°-95°F (4°-35°C). For best results, it is suggested to condition material to 65°-75°F before using.
Wet Density (ASTM C-138)	Approximately 125 lbs. per cf.
Total Chloride Ions (ASTM C-1152)	less than 0.08% by weight of cementitious material
Fine Aggregate	contains none (sand-contains calcium carbonate inert aggregate)
Volume Change (ASTM C-1090)	
24 hours	0.0% shrinkage
28 days	between 0 and +0.2% expansion
Expansion (ASTM C-940) 3 hours	between 0.0 and +2.0%
Compressive Strength (ASTM C-942)	
1 day	2,000 psi (13.8 MPa)
3 days	5,000 psi (34.5 MPa)
7 days	7,000 psi (48.3 MPa)
28 days	8,000 psi (55.2 MPa)
Initial Set (ASTM C-953)	Approximately 3 to 12 hours
Fluidity Test (ASTM C-939 Modified per FL Dot Section 938 and PTI Section 4.4.5.2)	
Immediately after mixing	7-20 seconds
30 minutes after mixing	7-20 seconds
	see Mixing section for clarification on flow testing
Bleeding (ASTM C-940 Modified per FL Dot Wick Induced Bleed Test)	4 hours 0.0%
Gelmen Pressure Induced bleed test (PTI Specification Section 4.4.6.2 and Table 4-1 Grout Type C)	0.0% nominal (less than 1 drop of water) bleed at 100 psi for 5 minutes
Permeability (ASTM C-1202 modified per FL DOT section 938 and PTI section 4.4.3)	
28 days	Less than 2500 Coulombs
Electrical Resistivity (ASTM C-1202) 28 days	Less than 10,000 ohm cm
Accelerated corrosion test (reference FL DOT Specification Section 938-6) Time to Corrosion	
Control	344 hours
SikaGrout 300 PT	greater than 1,000 hrs.

Independent lab results available upon request.

Construction



How to Use

Surface Preparation

Ducts: Ensure that ducts, voids, openings, inlets and outlets are clean and free of debris, fuel, oils, other contaminants, and site trash at all times.

Other grouting applications: 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 which will not inhibit grout bonding. Follow solvent manufacturer's instructions and warnings. 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 forms and ducts will retain grout without leakage. **Ducts:** Ensure that ducts, voids, openings, inlets and outlets are clean, dry and free of debris, fuel, oils, water, other contaminants, and site trash at all times. **Other grouting applications:** 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 which will not inhibit grout bonding. Follow solvent manufacturer's instructions and warnings. Concrete must be sound and roughened to promote mechanical adhesion. Prior to pouring, surface should be brought to a saturated surface-dry condition.

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, such as when vacuum grouting voids, 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. The method of pumping grout must ensure complete filling of the ducts without voids and complete surrounding of the strand or bar for product to perform and protect the tendon. 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. When grouting ducts or critical elements, it is highly recommended that experienced, A.S.B.I. Certified Grouting Technicians perform work.

Limitations

- Where practical, confirm duct filling and proper hardening of grout through probe holes. Report all anomalous results and observations to the project engineer.
- Minimum ambient and substrate temperature 40°F and rising at time of application. For lower temperatures, refer to the Post-Tensioning Institute (PTI) Guide Specification for Grouting of Post-Tensioned Structures
- Maximum ambient and substrate temperature is 100°F at the time of placement. For higher temperatures, refer to the PTI Guide Specification for Grouting of Post-Tensioned Structures
- Minimum application thickness: 1/8 in.
- Maximum application thickness (neat): comply with PTI specification for grouting of post-tensioned structures.
- 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.

Caution

WARNING: IRRITANT. Contains Portland Cement (CAS:65997-15-1), calcium carbonate (CAS:471-34-1), magnesium carbonate (CAS:546-93-0), and Fumes, silica (CAS:69012-64-2). Causes skin/respiratory tract irritation. Causes severe eye irritation. May cause eye injury, effects may be delayed. Harmful if swallowed.

WARNING! This product contains a chemical known in the State of California to cause cancer.

First Aid

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.**

Handling and Storage

Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use a properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse.

Clean Up

Use personal protective equipment (chemical resistant gloves/goggles/clothing). Without direct contact, sweep up spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable local, state, and federal regulations.

Construction

The Sika logo consists of the word "Sika" in a bold, yellow, sans-serif font, set against a red triangular background. A registered trademark symbol (®) is located to the right of the word.

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