

PRODUCT DATA SHEET

SikaGrout®-328

High performance, precision, grout with extended working time

PRODUCT DESCRIPTION

SikaGrout®-328 is a non-shrink, non-metallic, cementitious precision grout powered by ViscoCrete technology. This grout provides extended working time and exceptional physical performance at fluid consistency. A structural, precision grout, SikaGrout®-328 can be placed from fluid to dry pack.

USES

- Where exceptional one day and ultimate compressive strengths are required.
- Applications requiring a pumpable grout.
- Non-shrink grouting of machinery and equipment, base plates sole plates, precast panels, beams, columns and curtain walls.
- Applications where a non-shrink grout is needed for maximum effective bearing area to transfer optimum load.

- For underwater application in conjunction with Sikament® 100 SC. Consult Technical Service for dosage information. Independent test data is available however on site testing is recommended to confirm performance under actual field conditions.
- For grouting rebar, bolts, dowels and pins, etc.

CHARACTERISTICS / ADVANTAGES

- Multiple fluidity with one material
- Reaches 10,000 psi in dry pack consistency
- Outstanding performance in fluid state
- Extended working time
- Excellent fluidity - sufficient time for placement
- Contains premium quality quartz aggregate
- Hardens free of segregation
- Non-metallic, will not stain or rust
- Shows positive expansion

APPROVALS / STANDARDS

- Meets ASTM-C 1107 (Grade B & C)
- SikaGrout®-328 is USDA certifiable

PRODUCT INFORMATION

| | |
|---------------------------|--|
| Packaging | 50 lb (22.7 kg) bag |
| Appearance / Color | Gray powder |
| Shelf Life | 9 months from date of production if stored properly in original, unopened and undamaged sealed packaging |
| Storage Conditions | Store dry at 40–95 °F (4–35 °C) Protect from moisture. If damp, discard material |

TECHNICAL INFORMATION

| Compressive Strength | (ASTM C-109) 73 °F (23 °C) 50 % R.H. | Dry Pack | Plastic | Flowable | Fluid |
|----------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| 1 day | | 5,000 psi (34.4 MPa) | 4,500 psi (31 MPa) | 4,000 psi (27.6 MPa) | 3,500 psi (24.1 MPa) |
| 3 day | | 8,000 psi (55.2 MPa) | 6,500 psi (44.8 MPa) | 6,000 psi (41.4 MPa) | 5,500 psi (37.9 MPa) |
| 14 day | | 9,200 psi (63.4 MPa) | 7,000 psi (48.3 MPa) | 6,700 psi (46.2 MPa) | 6,500 psi (44.8 MPa) |
| 28 day | | 10,000 psi (69 MPa) | 8,200 psi (56.5 MPa) | 8,000 psi (55.2 MPa) | 7,500 psi (51.7 MPa) |

| Flexural Strength | | Fluid | (ASTM C-293) 73 °F (23 °C) 50 % R.H. |
|-------------------|--|---------------------|--|
| 3 day | | 1,100 psi (7.6 MPa) | |
| 7 day | | 1,200 psi (8.6 MPa) | |
| 28 day | | 1,300 psi (9 MPa) | |

| Splitting Tensile Strength | | Fluid | (ASTM C-496) 73 °F (23 °C) 50 % R.H. |
|----------------------------|--|-------------------|--|
| 3 day | | 350 psi (2.4 MPa) | |
| 7 day | | 400 psi (2.8 MPa) | |
| 28 day | | 650 psi (4.5 MPa) | |

| Shear Strength | | Fluid | (ASTM C-882 modified*) |
|----------------|--|----------------------|---------------------------|
| 3 day | | 950 psi (6.6 MPa) | |
| 7 day | | 1,750 psi (12.1 MPa) | |
| 28 day | | 2,000 psi (13.8 MPa) | |

*Mortar scrubbed into substrate at 73 °F (23 °C) and 50 % R.H.

| Freeze-Thaw Stability | 300 Cycles | 99 % | (ASTM C-666) |
|-----------------------|------------|------|--------------|
|-----------------------|------------|------|--------------|

APPLICATION INFORMATION

| Mixing Ratio | Dry Pack | Plastic | Flowable | Fluid |
|--------------|----------------------------|----------------------------|----------------------------|--------------------------|
| | 5.5–6.0 pts (2.6–2.8 L) | 6.5–7.0 pts (3.1–3.3 L) | 7.0–7.5 pts (3.3–3.5 L) | 8.0–8.5 pts (3.8–4 L) |

Coverage 0.44 ft³ (0.01 m³) per bag at hfluid consistency
(Coverage figures do not include allowance for surface profile and porosity or material waste)

| Layer Thickness | Min. | Max. |
|-----------------|----------------|---------------|
| | 1/2" (12.7 mm) | 6" (152.4 mm) |

For application thicknesses of 6" or greater, consult Sika®'s Technical Service Department.

| Flowability | Dry Pack | Plastic ¹ | Flowable ¹ | Fluid ² |
|-------------|----------|----------------------|-----------------------|--------------------|
| | 10–25 % | 100–125 % | 124–145 % | 20–60 sec |

¹ASTM C-1437

²ASTM C-939

Product Temperature 65–75 °F (18–24 °C)

Ambient Air Temperature > 45 °F (7 °C)

Substrate Temperature > 45 °F (7 °C)

| Set Time | Dry Pack | Plastic | Flowable | Fluid |
|----------|----------|---------|----------|--------|
| Initial | < 15 min | > 2 hr | > 3 hr | > 4 hr |
| Final | < 2 hr | < 6 hr | < 7 hr | < 8 hr |

SURFACE PREPARATION

- Surface must be clean and sound. Remove all deteriorated concrete, dirt, oil, grease, and other bond-inhibiting materials from the area to be repaired.
- Anchor bolts to be grouted must be de-greased with suitable solvent.
- Concrete must be sound and roughened to promote mechanical adhesion.
- To ensure optimum repair results, the effectiveness of decontamination and preparation should be assessed by a pull-off test.
- Substrate should be Saturated Surface Dry (SSD) with clean water prior to application. No standing water should remain during application.

FORMING

- 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®-328 in dry pack consistency.

MIXING

- Pour the water in the recommended proportion into a suitable mixing container.
- DO NOT OVER WATER!
- Ambient and material temperature should be as close as possible to 70 °F. If higher, use cold water; if colder, use warm water.
- While mixing slowly, add the powder to the water.
- Mix thoroughly for at least 5 minutes with low speed (400-600 rpm) using a Sika mixing paddle or a jiffy paddle to avoid entraining too much air and until homogenous with no lumps.

EXTENSION WITH AGGREGATES

- For deeper applications (plastic and flowable consistency only), 25 lbs. of 3/8" (9.5 mm) coarse aggregate can be added.
- The aggregate must be non-reactive (reference ASTM C-1260, C-227 and C-289), clean, well graded, saturated surface dry, have low absorption and high density, and comply with ASTM C-33 size number 8 per Table 2.
- Variances in aggregate may result in different strengths.
- Add pea gravel after the water and SikaGrout®-328.

APPLICATION

- Within 60 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®-328 must be confined leaving minimum exposed surface.
- After grout has achieved final set, remove forms, trim or shape exposed grout shoulders to designed profile.
- SikaGrout®-328 is an excellent grout for pumping, even at high flow. For pump recommendations, contact Technical Service.

CURING TREATMENT

- Wet cure for a minimum of 3 days or apply a curing compound which complies with ASTM C-309 on exposed surfaces.

LIMITATIONS

- Do not use as a patching or overlay mortar or in unconfined areas.
- 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.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

0 g/l

(EPA method 24)

LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or 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 label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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Product Data Sheet

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