



TECHNICAL BULLETIN

Epoxy Grouts Product Selector

| Product | Performance | | | | | | | | Application | | | | | |
|---------------|---------------|----------------|-------------|------|--------------|---------------------|-----------|--------------|-----------------------|------------------|-------------|-----|----|-----------------|
| | Elevated Temp | | Flowability | | Dynamic Load | Chemical Resistance | Low Creep | High Bearing | Base Plate Foundation | Narrow Clearance | Anchor Bolt | | | Deep Pour (>6") |
| | Good | Excellent | Norm | High | | | | | | | SM | MED | LG | |
| SikaFlow®-648 | | • | | • | • | • | • | • | • | • | | • | • | • ¹ |
| SikaFlow®-649 | | • | • | | • | • | • | • | • | | | | • | |
| SikaFlow®-668 | | • ² | | • | • | • | • | • | | • | | | | |
| SikaFlow®-678 | | • | | • | • | • | • | • | • | | | • | • | • ³ |
| SikaFlow®-690 | | • | | • | • | • | • | • | • | | | | • | • ⁴ |

(1) Consult Technical Service

(2) For chock grouting and use in small pours

(3) Pours up to 18"

(4) Pours up to 9"

PRODUCT DESCRIPTIONS

SikaFlow®-648

High-strength, versatile high-flow grout

SikaFlow®-649

High-strength, foundation grout

SikaFlow®-668

Epoxy chock grout for mounting equipment

SikaFlow®-678

Deep pour, multiple-use epoxy grout

SikaFlow®-690

Very high-strength grout

Description

Sika epoxy grouts are three-component grouts consisting of a two-part epoxy resin and a high-performance blended aggregate. Different products within the range provide solutions for traditional, high flow, anchor bolt, and chock grouting applications.

Features

- High early and 7-day strengths
- Epoxy based
- High bond strength
- Variable fill ratio
- High flowability
- Superior physical properties at elevated temperatures

Benefits

- Rapid return of equipment to service
- Good chemical resistance
- Bonds to steel and concrete
- Optimum flowability, bearing area, and economics
- Excellent bearing area for even distribution of loads
- Ideal for heat-generating equipment

TECHNICAL DATA

SikaFlow

| PROPERTY | 648 | 649 | 668 | 678 | 690 |
|---|------------------------------|----------------------------|----------------------------|------------------------------|----------------------------|
| Compressive strength, psi (MPa) | | | | | |
| 73° F (23° C) | 14,500 (100) | 18,000 (124) | 18,300 (126) | 13,000 (89) | 21,000 (144) |
| 140° F (60° C) | 11,500 (79) | 7,800 (54) | 13,100 (90) | 15,000 (103) | 26,000 (179) |
| 170° F (77° C) | 13,200 (91) | 7,000 (48) | 13,100 (90) | — | — |
| Modulus of elasticity, psi (GPa) | | | | | |
| 73° F (23° C) | 2.5 x 10 ⁶ (17.2) | 2.6 x 10 ⁶ (18) | 2.3 x 10 ⁶ (16) | 7.2 x 10 ⁶ (50.8) | 3.2 x 10 ⁶ (23) |
| 140° F (60° C) | — | 1.8 x 10 ⁶ (12) | 2.1 x 10 ⁶ (15) | — | — |
| 170° F (77° C) | — | 0.4 x 10 ⁶ (3) | 1.7 x 10 ⁶ (12) | — | — |
| Creep, in/in (cm/cm), at 600 psi (4.4 MPa) | | | | | |
| 140° F (60° C) | 4.2 x 10 ⁻³ | 4.0 x 10 ⁻³ | 0.8 x 10 ⁻³ | 4.1 x 10 ⁻³ | — |

Where to Use

- Pulp and paper mills
- Steel mills
- Chemical processing plants
- Machinery, turbine, and compressor grouting
- Anchor bolt and dowel grouting
- Crane rail grouting

Environment

- Grouting where the foundation requires chemical resistance
- Installations with high early strength requirements
- Applications with high dynamic loads
- Repairs where downtime loss is substantial

How to Apply

APPLICATION

1. Chip foundation. Form using a headbox.
2. Mix resin and hardener first.
3. Mix aggregate with resin.
4. Place grout.
5. Consult specific product data sheet before installation.

ACCESSORIES AND TOOLS REQUIRED

- Proper Personal Protective Equipment(PPE) for products being used
- Slow speed electric drill with Jiffy-type paddle
- Mortar mixers
- Forming material
- Paste wax or form release
- Wheelbarrows and/or buckets for transporting grout
- Steel straps
- Duct tape to seal leaking forms

PACKAGING AND YIELD

| PRODUCT | PACKAGING | YIELD FT ³ (M ³) |
|----------------------|------------------------------|---|
| SikaFlow®-648 | | |
| 54.4 lb unit | | 0.4 (0.001) |
| Resin | one 5.5 lb pail (2.5 kg) | |
| Hardener | one 1.65 lb bottle (0.75 kg) | |
| Aggregate | one 47 lb bag (21.3 kg) | |
| 230 lb unit | | 1.7 (0.05) |
| Resin | one 22 lb pail (10 kg) | |
| Hardener | one 6.6 lb bottle (3 kg) | |
| Aggregate | four 47 lb bags (21.3 kg) | |
| SikaFlow®-649 | | |
| 57.4 lb unit | | 0.43 (0.012) |
| Resin | one 5.6 lb pail (2.5 kg) | |
| Hardener | one 1.87 lb bottle (0.85 kg) | |
| Aggregate | one 50 lb bag (22.7 kg) | |
| 230 lb unit | | 1.73 (0.05) |
| Resin | one 22 lb pail (10 kg) | |
| Hardener | one 7.6 lb bottle (3.4 kg) | |
| Aggregate | four 50 lb bags (22.7 kg) | |
| SikaFlow®-668 | | |
| 59.7 lb unit | | 0.47 (0.013) |
| Resin | one 8.33 lb can (3.78 kg) | |
| Hardener | one 1.37 lb bottle (0.62 kg) | |
| Aggregate | one 50 lb bag (22.7 kg) | |
| SikaFlow®-678 | | |
| 240 lb unit | | 1.8 (0.05) |
| Resin | one 16.0 lb pail (7.3 kg) | |
| Hardener | one 8.0 lb bottle (3.6 kg) | |
| Aggregate | four 54 lb bag (24.5 kg) | |
| SikaFlow®-690 | | |
| 273.8 lb unit | | 1.97 (0.056) |
| Resin | one 33.32 lb pail (15.15 kg) | |
| Hardener | one 5.48 lb bottle (2.49 kg) | |
| Aggregate | five 47 lb bag (21.4 kg) | |

HEALTH , SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting usa.sika.com, e-mailing your request to technical service or calling 1(800)433-9517. Use only as directed. **IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.**

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