



# DIAMITE DP EPOXY GROUT

*Precision Epoxy Grout for  
Deep Pour Applications*

## 1. Product Description

**a. Basic Use:** Diamite DP Epoxy Grout is a 100% reactive epoxy grout formulated for deep placements. This low exothermic epoxy grout achieves exceptionally high ultimate strengths, has a long pot life, and is resistant to creep when grouting machinery and equipment. Diamite DP Epoxy Grout is dimensionally stable after hardening, is chemical resistant, and expands to fill minor gaps and voids.

### **b. Features/Benefits:**

- Extremely high ultimate strengths.
- Formulated for deep placements up to 18 inches.
- Non-shrinking, expansive formulation.
- Low exothermic properties.
- Superior creep resistance.
- Stable in chemically aggressive environments.
- Exceptional adhesion properties.
- Long pot life for extended working time.

**c. Typical Applications:** Large volume placements, deep pour grouting applications, compressors and motors, mill housings, pumps, anchors and dowels, crane rails, tanks and vessels.

**d. Limitations:** Do not use when service temperatures are expected to be over 150°F (66°C). Ambient placing temperatures should not be under 45°F (7°C) as this will adversely affect flow and rate of strength gain.

**e. Composition:** Diamite DP Epoxy Grout is a three-part system composed of a resin, a hardener, and an aggregate blend.

**f. Color/Appearance:** Concrete gray with a shiny surface.

## 2. Packaging

Diamite DP Epoxy Grout is packaged with separate containers of resin, hardener, and bags of aggregate blend. Shipping weight for one unit is 225-lbs. (102 kg).

## 3. Estimating/Yield

Diamite DP Epoxy Grout is a high-yield formulation with the following proportions and yields:

	<i>Standard Unit</i>	<i>High Flow Unit</i>
<i>Part A, resin</i>	<i>2 gallons (7.6 liter)</i>	<i>2 gallons (7.6 liter)</i>
<i>Part B, hardener</i>	<i>1 gallon (3.8 liter)</i>	<i>1 gallon (3.8 liter)</i>
<i>Part C, aggregate</i>	<i>3 x 65-lb. (30 kg) bags</i>	<i>2.5 x 65-lb. (30 kg) bags</i>
<i>Yield</i>	<i>1.68 feet<sup>3</sup> (0.048 m<sup>3</sup>)</i>	<i>1.40 feet<sup>3</sup> (0.040 m<sup>3</sup>)</i>

## 4. Technical Data

**a. Compressive Strength:** ASTM C 579

<i>Age</i>	<i>Strength</i>
<i>1 day</i>	<i>9,000 psi (62 MPa)</i>
<i>3 days</i>	<i>11,000 psi (76 MPa)</i>
<i>7 days</i>	<i>13,000 psi (90 MPa)</i>
<i>28 days</i>	<i>15,500 psi (107 MPa)</i>

**b. Flexural Strength:** ASTM C 580: 4,000 psi (28 MPa).

**c. Tensile Strength:** ASTM C 307: 2,000 psi (14 MPa).

**d. Expansion:** ASTM C 827: Positive

**e. Creep:** ASTM C 1181 - 400 psi (2.8 MPa) at 140°F (60°C):  $3.1 \times 10^{-3}$  inch/inch/°F.

**f. Coefficient of Thermal Expansion:** ASTM C 531:  $12.6 \times 10^{-6}$  inch/inch/°F ( $22.7 \times 10^{-6}$  mm/mm/°C).

**g. Peak Exotherm:** 95°F (35°C)

**h. Effective Bearing Area:** 95%

**i. Working Time:** 90 minutes at 70°F (21°C)

**j. Clearance:** 1 inch (25 mm) to 18 inches (457 mm)

**k. Consideration:** High Flow Unit physical properties will be lower than Standard Unit properties.

## 5. Directions for Use

**a. Preparation:** Most foundations and pedestals will need at least a minimum of surface preparation before setting of the baseplate. New foundations often have a layer of laitance from bleeding or are contaminated from construction activities. Others are too smooth to achieve good bond. Old foundations being prepared for regrouting may be soiled or oil soaked. Base concrete must be sound and clean. Chip, chisel, bushhammer, or shotblast surface down to sound concrete. Any oil soaked concrete must be removed. Blow surface clean with water and compressed air. The bonding surface must be free of any coatings, paints, sealers, or curing compounds.

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**b. Bonding:** No separate bonding agent is needed. The base concrete should be clean and dry when Diamite DP Epoxy Grout is placed.

**c. Baseplate:** Steel baseplates should be checked for cleanliness before installation over anchor bolts. Remove any oil, rust or dirt. Install plate over bolts and set to proper elevation on shim packs, leveling screws or anchor bolt nuts.

**d. Ambient Conditions:** Temperatures will dramatically affect the working time and cure time of Diamite DP Epoxy Grout. A cold environment will delay set time and extend working time. A warm environment will hasten the curing rate, but cut down on working time. Keep all materials as close to 70°F (21°C) as possible. The workability of the grout will be decreased at lower temperatures. The maximum temperature range for application is 45°F (7°C) to 90°F (32°C). Contact Metalcrete Industries for recommendations outside this range.

**e. Forming:** Form around baseplate to give a watertight containment. Leave at least a 1/2 inch (12.7 mm) gap between the form and the baseplate to allow for air relief. On one side, a head box should be constructed with the outside form at a 45 degree angle to facilitate pouring of the grout and to develop head pressure for gravity grouting. Wax forms or cover with polyethylene to facilitate stripping.

**f. Mixing:** The resin, Part A, and the hardener, Part B, should be pre-blended together using a mechanical drill and Metco Jiffy mixing blade. Using an adequately sized container, pour all of Part B into all of Part A and blend for 2 to 3 minutes. Proper blending is critical to assure good and complete curing. Pour the blended epoxy into the mortar mixer or pail. Add the aggregate blend, Part C, and mix until the aggregate is completely coated with epoxy, usually 2 minutes.

**g. Placing:** Transport grout to headbox side of form and fill the box. Diamite DP Epoxy Grout is designed to creep slowly across the foundation. Allow sufficient time for the material to fill the space and self-level around the perimeter. Straps made up of steel bands may be pre-placed under the plate and worked back and forth if quicker filling is needed.

**h. Finishing/Curing:** Forms may be stripped after the grout has hardened and will not slump away. No further curing procedures are needed.

**i. Clean-Up:** Small hand tools and equipment may be cleaned with Waterzall Concentrate and warm water or DL Solvent. Mortar mixers can be cleaned by loading the mixer with dry sand and wetting the aggregate with Waterzall Concentrate and water or DL Solvent. Clean all tools before hardening.

**j. Maintenance:** In extremely aggressive chemical environments, check grout for chemical attack every 6 months.

**k. Consideration:** Prior to Diamite DP Epoxy Grout application, review product packaging, technical data sheet, and safety data sheet thoroughly. Understanding product placement procedures and hazard information is imperative.

## 6. Availability

Diamite DP Epoxy Grout is normally available immediately from your local distributor or it will be shipped within 5 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete Industries directly for more information.

## 7. Warranty

Diamite DP Epoxy Grout is manufactured in strict accordance with the quality control standards of Metalcrete Industries. It is guaranteed to perform as indicated on this data sheet when applied by competent applicators.

## 8. Technical Service

Metalcrete technical service representatives are available to provide on-site assistance with a minimum three day notice.



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