



Guide to Bearing Grouts

Non-Shrink, Cementitious Grouts are intended for bearing applications to transfer load. These grouts are designed to be placed in areas where their expansion is restrained, i.e. under a base plate or in a form-and-pour or form-and pump installation.

Cementitious grouts are available in two types, non-metallic or metallic with the non-metallic (mineral) grouts being the most common grout in the market.

The metallic grouts are older technology, are prone to rusting but are good in repetitive dynamic loading.

A third type of grout is epoxy grouts which are best for the dynamic loading applications.

Standards & Specifications

ACI 351.1 Report on Grouting Between Foundations and Bases for Support of Equipment and Machinery

ACI 351.2 Report on Foundations for Static Equipment

ACI 351.3 Report on Foundations for Dynamic Equipment

ACI 351.4 Specification for Installation of Cementitious Grouting between Foundations and Equipment Bases

ASTM C1107 “Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)”

Application Overview

- Surfaces for cement-based grouting must be clean and in a saturated-surface-dry (SSD) condition
- Application of grout should be from one side of the area to be grouted and in one continuous flow

- The use of a head box is recommended
- When installing base plate grout, it is recommended to bevel/ chamfer the edge of the grout @ a 45° angle from the underside of the base plate
- Always **cure** the exposed surfaces of the grout
- ACI recommends a minimum of 1” clearance for structural grouting applications.
- It is recommended to have a minimum annular space of ½” when non-shrink cementitious grouts are used for doweling or anchoring
- Maximum depth of grout is 3”, after which 25# of clean, SSD, 3/8” pea-stone should be added per 50# bag of grout

Notes:

- Left unrestrained the non-shrink grout can expand beyond its capabilities resulting in cracking and lower overall performance.

Cold Weather Grouting

Follow ACI 306 Cold Weather Concreting recommendations. Heat water, precondition (warm) the grout, heat the substrate and protect from freezing until sufficient compressive strength is reached to protect the grout from freeze-thaw damage.

For faster set at lower temperatures, consider the Turbo Grout LT12 that will offer high strength at temperatures down to 35°F.



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Hot Weather Grouting

Follow ACI 305 Hot Weather Concreting recommendations. This includes the use of cold water, precondition (cool) the grout by removing shrink wrap & keeping out of the sun. When possible, shade the application area, spray down the steel with water, and flood the substrate until just prior to installation.

Dayton Superior Cementitious Grouts

1107 Advantage Grout

- Fluid, Flow-able & Dry Pack
- Cost-effective
- Meets ASTM C1107
- Specified by multiple state DOT's

Sure-Grip® High Performance Grout

- Fluid, Flow-able & Dry Pack
- Higher strength
- Meets ASTM C1107
- Tested and Certified by WQA to NSF/ANSI/CAN 61
- Specified by multiple state DOT's

Sure-Grip® Precision Grout

- Non-gaseous expansion
- High flow
- Meets ASTM C1107

Dri Pak Precast Grout

- Formulated specifically for low W/C ratios in dry pack applications.

Sure Grip Ferro Grout

- Precision metallic grout
- Holds up to industrial machinery vibration and impact

Turbo Grout HP-12

- Meets ASTM C1107
- Designed for wind turbine industry
- 12,000 psi @ 28-day [Flowable]

Turbo Grout LT-12

- Meets ASTM C1107
- Designed for wind turbine industry
- Low Temp! Install down to 35° F
- 12,000 psi @ 28-day in 35°-40° F.

Underwater Grout

- Designed to resist washout in underwater or tidal zone applications

D490 Sleeve-Lock Grout

- Non-metallic, non-shrink grout designed specifically for the Dayton Superior D410 Sleeve-Lock Grout Sleeve

Dayton Superior Epoxy Grouts

Epoxy Grout J-55

- 3-component epoxy grout
- Up to 8" in a single pour (unextended)
- 14,000 psi at 7 days per ASTM C579
- Used for precision grouting of machinery