



GP Grout

High Strength, Non-Shrink Grout



Description

GP Grout is a blend of portland cement, admixtures and proprietary aggregates. This material is designed to provide high flexural and compressive strength performance from plastic to fluid consistencies. **GP Grout** has been specifically formulated to exceed the requirements of ASTM C-1107, Grade B, Corp of Engineers CRD C-621 and AASHTO T-260. **GP Grout** is non-metallic, contains no chlorides or aluminum powders and is non-gas forming.

Uses

GP Grout is suited for a wide variety of applications that include:

- **Machinery grouting:** machinery bases, compressors, punch presses, generators
- **Structural grouting:** steel columns, pre-cast columns, crane rails, beams
- **Anchoring:** guard rails, sign posts, dowels, rods, bolts
- **Repair:** curb and gutter repair

Benefits

- **Workability:** meets standards through a wide range of consistencies
- **Cost effective:** extendable up to 30%
- **Strength:** attains high compressive strengths at specified water ratios
- **Economical:** good performance and low cost
- **Performance:** joins, supports and anchors
- **Will not bleed or segregate**
- **Consistent:** strict Quality Control Testing and standards

Surface Preparation

All surfaces in contact with **GP Grout** shall be free of dirt, oil, grease, laitance and other contaminants. All unsound concrete should be removed to ensure a good bond. Smooth, dense surfaces may need to be mechanically abraded to provide necessary bonding requirements. ACI recommends that the area to be grouted should be saturated for 24 hours before placement. Remove any standing water. Surface should be saturated, surface dry (SSD). Maintain contact areas between 45°F(7°C) and 90°F (32°C) prior to grouting and during initial curing period. For hot and cold weather grouting applications, contact your US SPEC manufacturer's representative.

Packaging: 50 lb. bag (22.7 kg.)
64 bags per pallet

Physical Properties

Compressive Strength (ASTM C-109*)

SET	1 DAY	3 DAYS	7 DAYS	28 DAYS
A Stiff	3,390 psi 23.35 MPa	5,000 psi 34.48 MPa	6,200 psi 42.71 MPa	10,200 psi 70.28 MPa
B PLASTIC	2,900 psi 19.98 MPa	4,500 psi 31.01 MPa	5,600 psi 38.58 MPa	6,700 psi 46.16 MPa
C FLOWABLE	2,200 psi 15.16 MPa	4,400 psi 30.32 MPa	5,200 psi 35.83 MPa	6,100 psi 42.03 MPa
D FLUID	1,500 psi 10.33 MPa	4,100 psi 28.25 MPa	4,700 psi 32.38 MPa	5,500 psi 37.90 MPa

*Notes: 73°F (22.8°C) 55% Humidity
A = 2.5 qts B = 3.5 qts C = 4 qts D = 4.5 qts

Rate of Set (ASTM C-266*)

SET	INITIAL	FINAL
B PLASTIC 1	:25	2:30
C FLOWABLE 2	:30	2:40
D FLUID 3	1:15	3:50

*Note: B - 100%-125% flow table (ASTM C-230, 5 drops in 3 seconds)
C - 125%-145% flow table (ASTM C-230, 5 drops in 3 seconds)
D - 28 second flow cone method (ASTM C-939)

Shrinkage Test (CRD C-621 Section 10.2)

AGE	% HEIGHT CHANGE
1 DAY	+0.01
3 DAYS	+0.02
7 DAYS	+0.02
14 Days	+0.03
28 DAYS	+0.04

Forming

Method of forming must provide for rapid, continuous grout placement. For pourable grout, construct forms to retain grout without leakage. Forms should be coated with a **US SPEC Form Release** for easy removal.

Yield: 50 lb. (22.7 kg) will fill approximately .43 ft³
(0.012 m³) when 4 quarts mixing water is used.

03600

GROUTS

Mixing

For best results, use a mechanical mixer with rotating blades. Pre-wet mixer and empty excess water. Place cool, clean potable water in mixer, then add dry grout to reach required consistency. Mix for a total of 5 minutes to achieve desired consistency. Mix only enough grout that can be placed within working time. Do not blend excess water as this will cause bleeding and segregation. Do not use any other admixtures or additives.

Desired Mix	Water/50 lbs.
Plastic	3 1/2 quarts
Flowable	4 quarts
Fluid	4 1/2 quarts

For placements greater than 3" in depth, **GP Grout** must be extended by up to 30%, by weight, with clean, washed and dry 3/8" (1cm) pea gravel.

Placing

Grout should be placed using established procedures according to American Concrete Institute recommendations. **GP Grout** can be placed by pumping, pouring, rodding or strapping. Mechanical vibration may cause segregation of aggregates. Place grout on one side of area. Let grout flow to opposite and adjacent sides to avoid entrapment of air and uneven bearing of the grouted surface. When necessary, provide vent holes. Grout should continue to be placed until it protrudes from the entire perimeter area. Grout "head" and excess grout may be removed after initial set.

Finishing & Curing

Do not disturb formwork or grout for 24 hours. Use wet rags or burlap to cure for 6 hours after placement. Exposed surfaces should be cured with a membrane forming curing compound such as **US Spec Maxcure Resin Clear, Hydrasheen 15% or Hydrasheen 30%**. For best results, grout "head" should extend downward at a 45 degree angle from edge of base.

Storage

Normal cement storage and handling practices should be observed. Store material in an interior, cool, dry place. Shelf life is one year in original, unopened bags.

Limitations

In addition to limitations already mentioned, please note the following. Do not use as a patching or overlay mortar or in unconfined areas. Normal conditions working time is 30 minutes. Setting time will speed up in hot weather and slow in cold weather. For hot and cold weather applications, contact your US SPEC manufacturer's representative.

Regulatory

Read and follow application information, precautions and Material Safety Data Information.

Right-to-know

This product contains Crystalline Silica (CAS# 14808-60-7) and Portland Cement (CAS# 65997-15-1).

HMIS

Health 1, Fire 0, Reactivity 0

Prop 65

Warning! This product contains Crystalline Silica, a chemical known to the State of California to cause cancer or reproductive toxicity.

VOC Content

0 g/l

Caution

EYE AND SKIN IRRITANT

Contains Portland Cement (CAS# 65997-15-1) Contains Aggregates (CAS# 14808-60-7) Do not allow contact with eyes or skin. Avoid breathing dust - Silica may cause serious lung problems. There is limited evidence Silica is a carcinogen. The use of gloves, goggles, and where appropriate, dust masks and other protective clothing is recommended. If cement or sand particles get into eyes, rinse immediately with clean water and seek prompt medical attention.

Technical Service

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Web Site: www.usspec.com

NOTICE OF LIMITED WARRANTY US MIX Products Co. (manufacturer) warrants to buyer that this product at the time and place of shipment is of good quality and conforms to the manufacturer's specifications in force on the date of manufacture when used in accordance with the instructions hereon. Manufacturer cannot warrant or guarantee any particular method of use, application or performance of the product under any particular condition. This limited warranty cannot be extended or amended by manufacturer's sales, people, distributors or representatives or by any sales information, specifications of anyone other than the manufacturer. Liability under this warranty is expressly limited to refund of the purchase price.

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