

# PRECAST MORTAR GROUT

## Description

ProSpec<sup>®</sup> Precast Mortar Grout is fast setting, non-shrink, single component, cementitious mortar grout formulated for precast repairs and erections.

## Features

- Rapid setting
- Non-metallic
- Non-staining
- Non-corrosive
- Contains no chlorides or other salts detrimental to reinforcing steel
- Excellent hang capability from 1/2" to 3" (13 to 76 mm)
- Cement based to ensure substrate compatibility
- Remains plastic for approximately 30 minutes at 70° F (21° C) allowing shaping and sanding
- Cost effective – no forming needed
- Non-shrink, shavable
- High strength
- Interior/exterior
- Freeze/thaw resistant
- Easy application at Dry Pack and Mortar consistencies

## Uses

- Patching mortar for use on vertical and overhead concrete and masonry surfaces
- Trowel or hand apply for structural repairs of interior or exterior and above or below grade areas
- Can be used as a bedding mortar joining vertical and horizontal precast members together
- Restoration of architectural details, bridges, parking structures, tunnels, precast concrete products, retaining walls, balconies, etc.

## Technical Data

	Dry Pack Consistency	Mortar Consistency	Maximum Consistency
Mixing Water	4.0 qts./50 lbs. (3.8 L/22.7 kg)	4.5 qts./50 lbs. (4.3 L/22.7 kg)	5.0 qts./50 lbs. (4.7 L/22.7 kg)
Curing Method	ASTM C 1107	ASTM C 1107	ASTM C 1107
<b>Compressive Strength ASTM C 109</b>			
1 day	>4,000 psi (27.6 MPa)	>3,200 psi (22.1 MPa)	>2,700 psi (18.6 MPa)
3 days	>5,500 psi (37.5 MPa)	>4,700 psi (32.4 MPa)	>4,000 psi (27.6 MPa)
7 days	>7,000 psi (48.2 MPa)	>6,500 psi (44.8 MPa)	>5,700 psi (39.3 MPa)
28 days	>8,500 psi (58.6 MPa)	>7,700 psi (53.1 MPa)	>7,000 psi (48.3 MPa)
<b>ASTM C 1090 Measuring Changes in Height of Cylindrical Specimens from Hydraulic – Cement Grout</b>			
3 Day Expansion	+0.03 %	+0.02 %	+0.00 %
14 Day Expansion	+0.03 %	+0.02 %	+0.01 %
28 Day Expansion	+0.03 %	+0.02 %	+0.01 %
<b>ASTM C 827 Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures</b>			
Average Change in Height at Final Set	0.40 %	0.70 %	0.80 %
<b>ASTM C 191 Time of Setting of Hydraulic Cement by Vicat Needle</b>			
Initial Set	2.5 to 3 hrs.	3 to 3.5 hrs.	3.5 to 4 hrs.
Final Set	3 to 3.5 hrs.	3.5 to 4 hrs.	4 to 4.5 hrs.

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## Preparation

All grout surfaces must be solid, completely free of oil, wax, grease, sealers, paint and other contaminants that may act as a bond breaker. Unsound concrete must be chipped away, leaving a rough strong surface insuring bond. If possible, prior to grouting, areas should be saturated with water for 12-24 hours, after which all excess water is removed. This produces a saturated surface dry grouting area (SSD).

Maintain ambient and surface temperatures between 40° F (4° C) and 100° F (38° C). Set times and strength developments are dependent on temperature.

Hot temperatures will accelerate physical properties while cold temperatures will have a retarding effect. Completely expose

and clean all reinforcing steel, ensuring a minimum clearance of 3/4" (19 mm) behind reinforcing steel. Perform reinforcing steel preparation in accordance with International Concrete Repair Institute Technical Guideline No. 03730. For best results patch area edges should be saw cut to a depth of 1/2" (13 mm). Abrade the concrete to obtain a good surface promoting adhesion. The use of a vigorously scrubbed in no slump bond coat of Precast Mortar Grout or a bonding agent like ProSpec Acrylic Additive is recommended. This should be applied to all surfaces coming into contact with the patch. Do not allow bond coat to dry prior to the placement of Precast Mortar Grout.

## Refer to

- ACI 305 [Standard on Hot Weather Concreting](#)
- ACI 306 [Standard on Cold Weather Concreting](#)

## Mixing

Precast Mortar Grout requires 4 to 5 quarts (3.7 to 4.7 L) of water per 50 lbs. (22.7 kg) of powder.

Mix only the amount of material that can be placed in 30 minutes. Pour the required amount of potable water into a clean mixing container, then add the measured amount of Precast Mortar Grout while continuing to mix. Blend thoroughly for 2-3 minutes

to a lump free, desired consistency. Small amounts of Precast Mortar Grout can be mixed using a trowel or a 1/2" drill (400-600 r.p.m.) and paddle. DO NOT over water, retemper, over mix or aerate. Clean the mixing container thoroughly after each batch to avoid getting hardened mortar into subsequent batches.

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## Application

When Dry Pack consistencies are required, immediately apply the fresh mortar into the entire surface, forcing Precast Mortar Grout firmly into the previously prepared area insuring full contact with all bonding surfaces. Slightly overfill the area and after initial set, using a steel trowel, shave Precast Mortar Grout to the desired final profile, shaving the patch from the center towards the bond edge at the existing surfaces, before the patch hardens insuring that nothing extends over the repair edges. A wet spray may be used for final shaping. In deeper areas additional lifts can be made after the original patch has reached initial set. Score and roughen the original lift layer to improve bond between applications.

Precast Mortar Grout, used neat, can be placed in lifts up to 5" (127 mm) on vertical and overhead applications by compacting the mortar in place until initial set takes place. In applications where the thickness is greater than 3" (76 mm) up to 33% clean, washed and dried 3/8" (10 mm) pea gravel, based on the weight of the grout may be added. (15 lbs. (6.8 kg) pea gravel to 50 lbs. (22.7 kg) Precast Mortar Grout).

When placing adjoining Precast members use the mortar consistency water level 4.5 qts. (4.3 L) to 50 lb. (22.7 kg) bag. Place the mortar on the horizontal member and then place the vertical element. Let the mortar reach a shavable consistency and shape as outlined above. A joint striking tool will be helpful to insure a clean seam.

## Clean Up

Clean equipment with water and detergent immediately after use.

## Best Performance

- Do not apply to frozen or frost covered areas. The minimum ambient and surface temperatures should be 40° F (4° C) at time of application. Hot weather and job conditions above 80° F (26° C) will reduce working time and accelerate set, while cold temperatures below 40° F (4° C) will have a retarding effect.
- Do not bridge moving cracks, control or expansion joints
- Protect from conditions that cause early water loss; avoid wind, sunlight and heat
- The minimum application thickness is 1/2" (12 mm)
- Do not over work, retemper, over water or add admixtures

## Refer to

- ACI 305 [Standard on Hot Weather Concreting](#)
- ACI 306 [Standard on Cold Weather Concreting](#)

## Curing

Cure in accordance with American Concrete Institute Procedure No 308. Keep Precast Mortar Grout moist and protected from high temperature, high wind, low humidity and direct sun causing rapid

drying, by covering with wet burlap or plastic for up to 24 hours. A water based curing compound can be used.

## Yield

50 lbs. (22.7 kg) bag yields approximately 0.44 ft<sup>2</sup> (0.01 m<sup>3</sup>)

## Packaging

50 lbs. (22.7 kg) moisture resistant bag

# PRECAST MORTAR GROUT

## Storage

Always keep in a cool dry place unexposed to sunlight.

## Shelf Life

One year when stored properly in original unopened container.

## Caution

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. WARNING!

Provide proper air circulation  
Can be irritating to eyes and skin. Avoid contact with eyes or

prolonged skin contact. In case of eye contact, flush thoroughly with water, DO NOT RUB EYES and call physician immediately. Wash hands with soap and water. Do not take internally

Consult Material Safety Data Sheet for further information

## First Aid

Inhalation: Remove to fresh air  
Eye Contact: Irrigate eye with water or consult physician if irritation persists.

Skin Contact: Washed exposed skin area with soap and water; consult a physician if irritation persists

Ingestion: Immediately consult a physician

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