



Planigrout[®] 755

Cement-Based, General-Purpose Construction Grout



DESCRIPTION

Planigrout 755 is a one-component, nonshrinking, cementitious construction grout consisting of selected fine aggregates and special additives. *Planigrout 755* requires only the addition of water to produce consistencies varying from dry pack to flowable. It produces excellent compressive and flexural strengths within a few days.

FEATURES AND BENEFITS

- Highly versatile grout producing consistencies from dry pack to flowable
- Specially formulated to achieve outstanding compressive and flexural strengths
- Ideal for structural grouting and anchoring

INDUSTRY STANDARDS AND APPROVALS

- Conforms to ASTM C1107 Grade C and CRD – C621 standards

WHERE TO USE

- Applications requiring a nonshrinking premixed structural grout for full load bearing and stabilization. Use as a structural grout for supporting columns, machine bases and base plates, as well as for anchoring and soil stabilization. *Planigrout 755* is suitable for grouting under precast, cast-in-place, post-tensioned and pre-stressed concrete members.
- For interior or exterior applications 1/2" to 2-3/8" (12 mm to 6 cm) on clean, properly prepared concrete substrates

For all types of structural grouting and anchoring (such as residential, commercial, industrial, institutional and civil projects), *Planigrout 755* achieves

an impressive compressive strength greater than 6,150 psi (42,4 MPa) with a flowable consistency in 28 days, and greater than 11,000 psi (75,9 MPa) with a dry-pack consistency in 28 days.

LIMITATIONS

- *Planigrout 755* provides excellent compressive and flexural strength for structural grouting applications from 1/2" to 2-3/8" (12 mm to 6 cm) thickness.
- For thicker applications up to 6" (15 cm), extend 30% by weight (16.5 lbs. [7,48 kg]) with clean, washed and saturated surface-dry (SSD) 3/8" (10 mm) pea gravel.
- *Planigrout 755* is prepackaged for easy field use and control, requiring only the addition of water. Add pea gravel for deeper applications. Do not add other additives or cements to *Planigrout 755*.
- *Planigrout 755* adheres well to existing properly prepared concrete surfaces. Before application of *Planigrout 755*, mechanically roughen and saturate surface-dry (SSD) the concrete surface.
- *Planigrout 755* must be protected from freezing during its setting and hardening time. The minimum temperature during and 3 days after application is 41°F (5°C).

SUITABLE SUBSTRATES

- Properly prepared masonry and concrete at least 28 days old, stable and free of hydrostatic pressure

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

Reference ACI 351.1R-99, "Grouting between Foundations and Bases for Support of Equipment and Machinery" (Reapproved 2008).

- All substrates must be structurally sound, stable and solid, with all loose materials removed.
- Thoroughly clean the surface of any substance that could interfere with the bond of the installation material, including dirt, paint, tar, asphalt, wax, oil, grease, curing compounds, form release agents, laitance, loose mortar, toppings, foreign substances and any other residues.
- Concrete surfaces must be mechanically profiled and prepared by needle gun, grit-blasting, sandblasting, waterjetting, scarifying or other engineer-approved methods to obtain a +/- 1/8" (3 mm) profile. Reference ICRI CSP Standards 7 to 9 for acceptable profile height.
- Concrete substrate and ambient room temperatures must be between 41°F and 95°F (5°C and 35°C) before application. Temperatures must be maintained within this range for at least 72 hours after the installation of *Planigrout 755*.
- Do not apply over standing water. Thoroughly wet the concrete contact area 24 hours before grouting, keeping it damp with no surface water present before placement. If a 24-hour period is not possible, then saturate with water for at least 4 hours, ensuring that surface water is removed before product placement.

MIXING

Note: Choose all appropriate safety equipment before use. Refer to Material Safety Data Sheet (MSDS) for more information.

1. Into a clean mixing pail, pour 4/5 of the required amount of cool, clean potable water (see "Shelf Life and Application Properties" table for mixing ratios).
2. Slowly add *Planigrout 755* to water while mixing, using a low-speed mixer. Add the remaining 1/5 of water to achieve the desired consistency. Mix for up to 4 minutes, scraping down any unmixed powder after 1 to 2 minutes, and remix to a smooth, homogenous consistency.
3. Do not overmix. Overmixing can cause air entrapment and compromise mechanical properties of grout.
4. Grout should not be over-worked or over-watered, causing segregation or bleeding.
5. Place immediately after mixing. Do not hand-mix *Planigrout 755*.
6. Do not mix more material than can be applied within 1 hour.

PRODUCT APPLICATION

Reference ACI 351.1R-99, "Grouting between Foundations and Bases for Support of Equipment and Machinery" (Reapproved 2008).

1. Read all installation instructions thoroughly before installation.
2. For Dry-Pack Method: *Planigrout 755* must be firmly pressed or rammed into place. Use metal or hardwood tamping tools and mallet.
3. For Plastic Method: *Planigrout 755* may be rodded, strapped, chained or troweled into areas where material cannot flow into place.
4. For Flowable Method: *Planigrout 755* may be used with a low-pressure mechanical cement grout pump or poured in flowable state, and hand-rodded or chained into place.
5. *Planigrout 755* is recommended for jointing structural precast components and for filling rigid joints and keyways up to of 2-3/8" (6 cm) thick.
6. Apply to a maximum thickness of 2-3/8" (6 cm) neat. For deeper repair patching of up to 6" (15 cm) thick, add 30% by weight (16.5 lbs. [7,48 kg]) of washed, cleaned and SSD 3/8" (10 mm) pea gravel.
7. To facilitate the filling of hard-to-reach areas, use a wood strip, steel rod or chain.
8. Do not vibrate *Planigrout 755*, as any required vibration should take place only on the construction forms.
9. Because *Planigrout 755* is designed for various consistencies and certain characteristics such as workability and mechanical strengths, a preliminary test or mockup should be performed to verify installation capabilities.

CURING

- Curing is recommended for 72 hours after removal of forms using wet curing, damp burlap, polyethylene sheeting or a quality water-based curing compound.
- Protect from excessive heat and/or wind, which can cause premature surface drying and result in cracking. Do not use solvent-based curing compounds.

CLEANUP

- Wash hands and tools promptly with water before material hardens.
- Cured material must be mechanically removed.

PROTECTION

- For at least 72 hours during initial curing, protect from direct sunlight, air movement and temperatures beyond application range.

Product Performance Properties

Laboratory Tests	Results
Flammability	This product is certified by MAPEI as "noncombustible" in accordance with IMO FTP Code requirements. Contact MAPEI's Technical Services Department for details.

Compressive strength – ASTM C109 (CAN/CSA-A5)

	Dry Pack	Plastic	Flowable
1 day	> 5,900 psi (40,7 MPa)	> 2,300 psi (15,9 MPa)	> 1,750 psi (12,1 MPa)
3 days	> 8,200 psi (56,6 MPa)	> 3,700 psi (25,5 MPa)	> 3,000 psi (20,7 MPa)
7 days	> 9,600 psi (66,2 MPa)	> 4,900 psi (33,8 MPa)	> 3,800 psi (26,2 MPa)
28 days	> 11,000 psi (75,9 MPa)	> 7,100 psi (49,0 MPa)	> 6,150 psi (42,4 MPa)

Note: Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Shelf Life and Application Properties – Planigrout 755 (Powder)

Shelf life	1 year in original bag stored in a dry, heated, covered and well-ventilated place
Physical state	Powder
Color	Gray

Shelf Life and Application Properties – Planigrout 755 (Mixed with water)

Color	Gray
Application temperature range	41°F to 95°F (5°C to 35°C)
Thickness per lift (neat)	1/2" to 2-3/8" (12 mm to 6 cm)
Volumetric change	Conforms to ASTM C1107 Grade C and CRD – C621 standards
Mixing ratio (water per 50-lb. [22,7-kg] bag)	Dry pack: 6.75 U.S. pints (3,19 L) Plastic: 9.9 U.S. pints (4,68 L) Flowable: 10.75 U.S. pints (5,09 L)
Flow table (ASTM C230)	Dry pack: Forms a ball Plastic: 110% Flowable: 135%
Density	Dry pack: 2.24 Plastic: 2.13 Flowable: 2.08
Pot life	Dry pack: Not applicable Plastic: 60 minutes Flowable: 60 minutes
Initial set (ASTM C266)	Dry pack: 2.5 hours Plastic: 4.5 hours Flowable: 6 hours
Final set (ASTM C266)	Dry pack: 3 hours Plastic: 6 hours Flowable: 7.5 hours

CSI Division Classification

Grouts	036000
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Packaging

Product Code	Size
15550000	Bag: 50 lbs. (22,7 kg)

Approximate Product Coverage*

Size	Yield
Per 50 lbs. (22,7 kg)	Dry pack: 0.41 cu. ft. (0,0116 m ³) Plastic: 0.45 cu. ft. (0,0127 m ³) Flowable: 0.47 cu. ft. (0,0133 m ³)

* Coverages shown are for estimating purposes only. Actual jobsite coverages may vary according to substrate conditions and setting practices.

Planigrout® 755



RELATED DOCUMENTS

Grouting between Foundations and Bases for Support of Equipment and Machinery (Reapproved 2008)	ACI 351.1R-99
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Refer to MAPEI's MSDS for specific data related to VOCs, health and safety, and handling of product.

STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



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For the most current **BEST-BACKED™** product data and warranty information, visit www.mapei.com.

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