Precast Utility Grout

1. PRODUCT NAME
Tenon® Precast Utility Grout

2. MANUFACTURER
TCC Materials
2025 Centre Pointe Blvd
Mendota Heights, MN 55120 USA
Phone: 1.651.688.9116
Fax: 1.651.688.9164
Internet: tccmaterials.com

3. PRODUCT DESCRIPTION
Tenon® Precast Utility Grout is a fast setting, non-shrink, single component, cementitious mortar grout formulated for precast repairs and erections.

Features and Benefits
- Interior/Exterior
- Excellent hang capability from ½" to 3" (13 to 76 mm)
- Remains plastic for approximately 30 minutes at 70°F (21°C) allowing shaping and sanding
- Rapid setting
- Non-staining
- Non-shrink
- Non-corrosive
- Non-metallic
- Shavable
- Contains no chlorides or other salts detrimental to reinforcing steel
- Cement-based to ensure substrate compatibility
- Cost effective - no forming needed
- High strength
- 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.

SAFETY
READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: tccmaterials.com or contact TCC Materials® at 651-688-9116 (7:30 AM to 4:00 PM, M-F, Central US Time).

CAUTIONS
Read complete cautionary information printed on product container prior to use.
This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered Tenon® brand product(s) under normal environmental and working conditions. Because each project is different, neither Tenon® nor TCC Materials® can be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA
Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤

Typical Values • Precast Utility Grout			
	Dry Pack Consistency	**Mortar Consistency**	**Plastic Consistency**
Mixing Water per 50 lb. (22.7 kg)	4.0 qt. (3.8 L)	4.5 qt. (4.3 L)	5.0 qt. (4.7 L)
Curing Method	ASTM C 1107	ASTM C 1107	ASTM C 1107
ASTM C191 Time of Setting of Hydraulic Cement by Vicat Needle			
	Dry Pack Consistency	**Mortar Consistency**	**Plastic Consistency**
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
Compressive Strength ASTM C 109			
	Dry Pack Consistency	**Mortar Consistency**	**Plastic Consistency**
1 day	>4,000 psi (27.6 MPa)	>3,500 psi (24.2 MPa)	>2,700 psi (18.6 MPa)
7 day	>8,000 psi (55.2 MPa)	>7,000 psi (48.3 MPa)	>5,900 psi (40.7 MPa)
28 day	>9,500 psi (65.6 MPa)	>8,000 psi (55.2 MPa)	>7,250 psi (50.0 MPa)

Data Sheets are subject to change without notice. For the latest version, check our website at www.tccmaterials.com

4. TECHNICAL DATA (Cont.)

ASTM C 1090 Measuring Changes in Height of Cylindrical Specimens from Hydraulic - Cement Grout			
	Dry Pack Consistency	**Mortar Consistency**	**Plastic Consistency**
3 Day Expansion	+0.03 %	+0.02 %	+0.00 %
7 Day Expansion	+0.03 %	+0.02 %	+0.01 %
28 Day Expansion	+0.03 %	+0.02 %	+0.01 %
ASTM C 827 Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures			
Average Change in Height at Final Set	**Dry Pack Consistency**	**Mortar Consistency**	**Plastic Consistency**
	0.40 %	0.70 %	0.80 %

Greater than: >Greater than or equal to: ≥ Less than: < Less than or equal to: ≤
Note: Test results obtained under controlled laboratory conditions at 73°F (22.7°C) and 50% relative humidity. Reasonable variations can be expected due to atmospheric and job site conditions.

LEED® Eligibility[1]
- Regional Materials (MR-c4, MR-c5)

Product Enhancement
Expansion Stabilization Technology (EST®) - Special additive designed to reduce the potential for cracking and shrinkage.

Packaging
Gray: 50 lb. (22.7 kg.) bag (BOM #115760)

Shelf Life
12 months from the date of manufacture when stored in the original, unopened container, away from moisture, under cool, dry conditions and out of direct sunlight.

5. INSTALLATION

Preparation
All materials should be conditioned to 40°F-80°F (4°C-27°C) 24 hours prior to installation. Proper surface repair preparation is crucial to achieving a successful application.
- All grout surfaces must be solid, completely free of oil, wax, grease, sealers, paint and other contaminates 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 40º F (4ºC) and 100º F (38º 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.

Bond Coat
Mix Precast Utility Grout to a thin mix consistency and scrub vigorously with a stiff broom or brush into the prepared substrate. Immediately place the mixed Precast Utility Grout as directed into the wet bond coat (do not allow bond coat to dry before placing mixed Precast Utility Grout).

Note: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Refer to:
- ACI 305 Standard for Hot Weather Concreting
- ACI 306 Standard for Cold Weather Concreting

Job Mockups
The manufacturer requires that when its Tenon® products are used in any application or as part of any system that includes other manufacturers' products, the contractor and/or design professional shall test all the system components collectively for compatibility, performance and long-term intended use in accordance with pertinent and accepted industry standards prior to any construction. Written documentation of the tests performed shall be satisfactory to the design professional and contractor. Test results must include the means and methods of application, products used, project-specific conditions being addressed, and standardized tests performed for each proposed system or variation.

Mixing
Water Requirements
Desired grout consistency
- Dry Pack consistency
  4 quarts (3.8 L) of clean potable water per 50 lb. bag (22.7 kg).
- Mortar consistency
  4.5 quarts (4.3 L) of clean potable water per 50 lb. bag (22.7 kg).
- Plastic consistency
  5 quarts (4.7 L) of clean potable water per 50 lb. bag (22.7 kg).

1. 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 Utility Grout while continuing to mix.

2. Blend thoroughly for 2-3 minutes to a lump free, desired consistency. Small amounts of Precast Utility Grout can be mixed using a trowel or a heavy-duty 1/2" drill (400-600 rpm) and paddle. DO NOT overwater, retemper, over mix, or aerate.
3. Clean the mixing container thoroughly after each batch to avoid getting hardened mortar into subsequent batches.

Application

Apply only when air and substrate temperatures are between 40°F–80°F (4°C-27°C) within 24 hours of application and when rain is not expected within 12 hours.

1. 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.
2. When Dry Pack consistencies are required, immediately apply the fresh mortar into the entire surface, forcing Precast Utility Grout firmly into the previously prepared area insuring full contact with all bonding surfaces.
3. Slightly overfill the area and after initial set, using a steel trowel, shave Precast Utility 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.
4. 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.
5. Precast Utility Grout 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 lb. (6.8 kg)) pea gravel to 50 lb. (22.7 kg) Precast Utility Grout)).
6. When placing adjoining precast members use the mortar consistency water level 4.5 qt. (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.

Curing

Cure in accordance with American Concrete Institute Procedure No 308. Keep Precast Utility 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.

Cleaning

Use clean potable water to clean all tools immediately after use. Dried material must be mechanically removed. Use a waste water hardener (e.g. Conglez™ or similar product) for cementitious waste disposal

Limitations

- Do not apply to frozen or frost covered areas.
- Do not bridge moving cracks, control or expansion joints.
- Do not expose product to conditions that cause early water
- loss; avoid wind, sunlight and heat.
- Do not apply a thickness less than 1/2" (12 mm).
- Do not apply in thicknesses greater than 1" (24 mm) lifts for overhead applications for a maximum thickness of 3" (36 mm) when forming cannot take place.
- Do not over work, retemper, overwater, or add admixtures.

Coverage

50 lb. (22.7 kg) bag yields approximately 0.44 cu. ft. (0.01 m^3)

6. AVAILABILITY

To locate Tenon® products in your area, please contact:

Phone: 1.651.688.9116
Website: tccmaterials.com

7. WARRANTY

Seller warrants that its product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, expressed or implied, including, but not limited to those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that Seller's liability to the Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.

8. MAINTENANCE

Not applicable.

9. TECHNICAL SERVICES

Technical Assistance:
Information is available by calling TCC Materials®
(hours 7:30 AM to 4:00 PM, M-F, CST):

Phone: 1.651.688.9116
Fax: 1.651.688.6164
Web: tccmaterials.com

Technical and Safety Literature:
To acquire technical and safety literature, please visit our website at: tccmaterials.com.

10. FILING SYSTEM

Division 3

[1] Tenon® products can contribute to LEED® credits within the Material Resource, (Recycled Content & Regional Materials) and Indoor Environmental Quality (Low Emitting Materials).

Tenon® is a trademark of TCC Materials

LEED® is a registered trademark of U.S. Green Building Council.

Data Sheets are subject to change without notice. For the latest revision, check our website at tccmaterials.com

TCC Materials
2025 Centre Pointe Blvd
Mendota Heights, MN 55120
©Copyright 2025 TCC Materials®

REV 01/25