



PCL MORTAR PRO TYPES N, S, AND M

General purpose masonry mortar mix

1. PRODUCT NAME

Tech Mix® PCL Mortar Pro

2. MANUFACTURER

Bluestone Products™, a TCC Materials® company
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Mendota Heights, MN 55120 USA
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3. PRODUCT DESCRIPTION

Tech Mix PCL Mortar Pro is a consistent, specifically formulated blend of Portland cement, hydrated lime, and dried sand with superior bond, water retention, and board life. Used for multi-purpose interior and exterior masonry construction including laying brick, block, and stone. Refer to ASTM C270 for more information.

Features and Benefits

- Preblended - just add water, mix, and use
- Quick and easy
- Meets ASTM C270
- 20+ colors available

When/Where to Use

- Above grade (Type N & S)
- Below grade (Type M & S)
- Laying brick, block, and stone walls
- Building or repairing chimneys, grills, and planters
- Thin stone and brick veneers
- Tuckpointing
- Stucco repair (Type N)
- Refer also to ASTM C270 Table X1.1 for mortar type selection

4. TECHNICAL DATA

Typical Values • Tech Mix PCL Mortar Pro	
Set Time (ASTM C403)	
Initial Set	2 hours
Final Set	3-5 hours
Compressive Strength Type N, psi (ASTM C109)	
28 days	750 psi (5.17 MPa)
Compressive Strength Type S, psi (ASTM C109)	
28 days	1,800 psi (12.4 MPa)
Compressive Strength Type M, psi (ASTM C109)	
28 days	2,500 psi (17.5 MPa)

PCL Mortar Pro Type N meets or exceeds the requirements of ASTM C270 and ASTM C 1714. The mortar type used should correlate with the masonry units and the design requirements, building codes, and specification requirements for the application. Submittals available upon request.

Note: Test results obtained under controlled laboratory conditions at 73°F (22.7°C) and 50% relative humidity unless otherwise specified.

Available Size

- PCL Mortar Pro Type N 80 lb. (36.3 kg) bag (BOM #111207)
- PCL Mortar Pro Type S 80 lb. (36.3 kg) bag (BOM #111217)
- PCL Mortar Pro Type M 80 lb. (36.3 kg) bag (BOM #111263)
- Pre-blended colors available (BOM # upon request)

Coverage

80 lb. (36.3 kg.) bag yields approximately 0.60 cu. ft. (17 L)

Approximate Coverage • Tech Mix PCL Mortar Pro	
4 in. Block	14 - 16 per 80 lb. bag
6 in. Block	11 - 13 per 80 lb. bag
8 in. Block	11 - 13 per 80 lb. bag
10 in. Block	10 - 12 per 80 lb. bag
12 in. Block	9 - 11 per 80 lb. bag
Modular Brick	35 - 40 per 80 lb. bag
Queen Size Brick	31 - 33 per 80 lb. bag
King Size Brick	25 - 27 per 80 lb. bag
Utility Brick	22 - 24 per 80 lb. bag

* Coverage will vary based on waste and job site conditions

5. INSTALLATION

Preparation

Read all directions before starting work. When laying a new masonry wall, construct a sound footing below the frost line using Tech Mix Concrete Mix. When repairing mortar joints or stucco, rake out excess mortar and/or brush out the joints to remove loose mortar or sand. Dampen areas to be repaired with water just prior to application with no residual water pooling. Surfaces should be sound and free from dust, dirt, grease, oil, loose debris, etc.

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

Mixing

1. PCL Mortar Pro can be mixed by hand or by machine. Choose the mixer size most appropriate for the size of the job to be done. Allow at least 1 cu. ft. (28 L) of mixer capacity for each 80 lb. bag to be mixed at one time.
2. Begin by adding 4.5 qt. (4.3 L) of potable water per 80 lb. bag of powder into the clean mixer. Start the mechanical mixer then slowly pour the dry material into the water.
3. Mix until a workable consistency is reached, typically 3-5 minutes. If more water is needed, add small increments up to a maximum of 6.5 qt. (6.2 L) per 80 lb. bag. Excess water reduces strength and durability and can cause cracking. In cold weather, use warm water to accelerate the set. In hot weather, use cold water to slow the set.

Application

Ideal application conditions are when air, material, and substrate temperatures are between 40°F-100°F (4°C-38°C) within 24 hours of application and placement, and when rain is not forecast 24 hours after. Set times will vary in extremely hot or cold conditions. Do not apply to surfaces that are frozen or contain frost.

1. Block or brick placement: For the first layer of block or brick,

- spread a full bed of mortar 1 in. (25 mm) thick along the footing and position the corner block/ brick carefully in the mortar bed.
- Beginning with the second block/brick apply mortar to the head joint (vertical edge) and press the block/brick down into the mortar and place into position against the previously laid block/brick.
 - Mortar joints should be a consistent 3/8" (10 mm) thick. Use a level and mason's line to maintain alignment and joint width throughout the project. Make any adjustments by tapping the block/ brick with the trowel handle while the mortar is still workable.
 - For the remaining courses, mortar is applied to the vertical edge of each block/brick before it is placed. Once the mortar joints have become "thumbprint" hard, use a jointing tool to smooth and seal the joints.

Stucco repair (Type N):

- When repairing stucco, apply the material using a plasterer's hawk and trowel using enough pressure to completely fill and compact the material.
- Texture stucco to match the surrounding area using a plasterer's trowel.
- Tech Mix Mortar Mix Pro - Type N can be painted using an alkali resistant lime proof paint, allow a minimum of 7 days prior to painting provided the masonry is dry.

Tuck-pointing/repairing mortar joints (Type N):

- Load the trowel with mortar. Pick up the mortar from the trowel with a jointer tool and pack it firmly into the joints.
- Once the mortar has become "thumbprint" hard, use the jointer tool or other appropriate tool to finish the repaired joints so that they match the existing joints.
- Clean excess mortar off the brick faces as soon as possible.

Curing

Moist curing of masonry mortars is required if conditions are hot, dry, or windy. In such cases, a gentle mist of water applied to the surface will prevent premature drying and improve the strength of the mortar. Protect mortar from freezing during the first 48 hours. Plastic sheeting and insulation blankets should be used if temperatures are expected to fall below 32°F (0°C). Curing with plastic or burlap can cause patchy discoloration of the mortar. Full cure is reached after 28 days.

Clean Up

Use soapy water to clean hands and tools immediately after use. Dried material must be mechanically removed. Use a waste water hardener (e.g. Congelz™ or similar product) for cementitious waste disposal. For more detailed information on cleaning masonry units, refer to Technical Notes "Washing of Masonry Walls" at tccmaterials.com.

Limitations

- Follow all industry standard safety procedures when working with concrete products including wearing impervious gloves, such as nitrile when handling.
- Mortar type should be correlated with the specific masonry unit to be used.
- Do not add aggregate.
- Do not overwater.
- Maintain consistency between batches.
- Set times will fluctuate in extremely hot or cold weather. Use cold water in severely hot weather; use hot water (not exceeding 120°F (48°C)) when mixing in severely cold weather.

- PCL Mortar Pro should be installed in accordance with local building code provisions and all applicable ASTM standards.
- Good workmanship and proper detailing and design assures durable, functional, water tight construction.

Safety

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: tccmaterials.com

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 Tech Mix brand product(s) under normal environmental and working conditions. Because each project is different, TCC Materials cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

6. AVAILABILITY

To locate Tech Mix products in your area, please contact:
 Phone: 1.651.688.9116
 Email: info@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.

Shelf Life	Best when used within one year in original, unopened bags
Storage Conditions	Store dry, cool, out of direct sunlight. Best to condition material to 50-80°F (10°-27°C) before using.

WARNING: INJURIOUS TO EYES

KEEP OUT OF REACH OF CHILDREN

