MORTAR (MASON) MIX TYPE S

Mortar blend for load-bearing, above and below-grade masonry construction

1. PRODUCT NAME
Tech-Mix® Mortar Mix Type S

2. MANUFACTURER
Tech-Mix® is a registered trademark of TCC Materials
2025 Centre Pointe Blvd., Suite 300
Mendota Heights, MN 55120 USA
Phone: 1.651.688.9116
Web: techmixpro.com

3. PRODUCT DESCRIPTION
Tech-Mix Mortar (Mason) Mix Type S is a consistent, high strength, blend of Portland cement, lime and dried sand for multi-purpose masonry construction including laying brick, block, and stone on load-bearing walls. Suitable for construction above and below-grade.

Features and Benefits
- Preblended mix
- Quick and easy
- Just add water, mix and use

When/Where to Use
- Above or below-grade construction
- Brick, block, and stone walls
- Load-bearing or non-load-bearing
- Columns
- Stone and brick veneers
- Retaining walls
- Tuckpointing

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.

4. TECHNICAL DATA
Meets or exceeds the requirements of ASTM C270, ASTM C387, and ASTM C1714 for Type S mortar.

Typical Values • Tech-Mix Mortar Mix Type S	
Compressive Strength, psi (ASTM C1714)	
28 days	1,800 psi (12.4 MPa)

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

Available Size
- 80 lb. (36.3 kg) bag (BOM #104885)

Coverage.
- Each 80 lb. (27.2 kg.) bag will yield approximately ¾ cu. ft. of wet mortar.
- For laying brick, block or stone, each 80 lb. (36.3 kg.) bag will lay approximately 35 to 40 standard modular brick or 11 to 13 standard 8 in. modular concrete block.
- Remember to estimate extra for waste, spillage, an uneven surfaces.

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 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
A barrel-type concrete mixer or paddle type mortar mixer is recommended, although hand-mixing can also be used. Always stir powder into the liquid for easier blending. Use potable water for mixing, no bonding additives are needed. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the mix temperature.

1. Choose the mixer size most appropriate for the size of the job. Allow at least 1 cu. ft. (28 L) of mixer capacity for each 80 lb. bag to be mixed at one time.
2. Add approximately 4.5 qt. (4.3 L) of potable water into the mixing container for each 80 lb. (36.3 kg) bag. Turn on the mixer and slowly pour the contents of the bags into the mixer.
3. Mix for 3-5 minutes to ensure a uniform lump-free consistency. If the material becomes too difficult to mix, add additional water in small increments until a workable mix is obtained, do not overwater. Do not exceed a total volume of 5.5 qt. (5.2 L) of water for each 80 lb. (36.3 kg.) bag. Excess water reduces strength and durability and can cause cracking.

Approximate Water Amounts for Mixing		
Bag Size	**Starting Water Amounts**	**Final Maximum Water Amounts**
80 lb. (36.3 kg)	4.5 qt. (4.3 L)	5.5 qt. (5.2 L)

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 72 hours thereafter. Do not apply in direct sunlight on hot, windy days or when rain is forecasted within 24 hours. Set times will vary in extremely hot or cold conditions. Do not apply over concrete cured less than 28 days or surfaces that are frozen or contain frost.

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 ⅜ in. (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. For load-bearing or below grade walls, contact your local codes for reinforcement requirements.

Tuckpoint (repairing) mortar joints: 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

Curing means maintaining proper moisture and temperature to increase the strength and durability of concrete and is one of the most important steps in concrete construction. A poor curing job can ruin an otherwise well-done project. The ideal circumstances for curing are ample moisture and moderate temperature and wind conditions. When weather is too hot, dry or windy, water is lost by evaporation from the concrete, and hydration stops, resulting in finishing difficulties and cracks. In such cases, concrete can be moist cured by a gentle mist of water applied to the surface or covering the concrete surface with plastic sheeting. Curing should be started as soon as possible without damaging the concrete finish and should continue for a period of 5 days in warm weather at 70°F (21°C) or higher or 7 days in colder weather at 50°-70°F (10°- 21°C). In near freezing temperatures the hydration process slows considerably. Protect mortar from freezing during the first 48 hours; if temperatures are expected to fall below 32°F (1°C), plastic sheeting and insulation blankets should be used.

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.

Limitations

- Do not add aggregate.
- Do not overwater. Do not exceed water limits listed when mixing.
- 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.
- Always comply with the steel reinforcement requirements of applicable building codes for structural applications.
- Follow all industry standard safety procedures when working with concrete products including wearing impervious gloves, such as nitrile when handling.
- Mortar Mix Type S should be installed in accordance with local building code provisions and all applicable ASTM standards.

Safety

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

6. AVAILABILITY

To locate Tech-Mix products in your area, please contact:
Phone: 1.651.688.9116
Website: techmixpro.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.
Color	Gray

WARNING: INJURIOUS TO EYES

KEEP OUT OF REACH OF CHILDREN

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