

# STONEMIX

## TYPE S MASONRY CEMENT



**SOUTHERN HERITAGE MASONRY**

### PRODUCT DESCRIPTION

Type S masonry cement.

#### Basic Use

Southern Heritage Masonry (SMH) STONEMIX is specially formulated and manufactured to produce masonry mortar for use in stone masonry construction.

#### Composition and Materials

Southern Heritage Masonry STONEMIX consists of a mixture of portland cement, limestone, and chemical admixtures to provide plasticizing properties and other enhanced performance attributes. These components are proportioned at the manufacturing facility under controlled conditions to assure product consistency.

#### Types

Southern Heritage Masonry STONEMIX is produced in accordance with ASTM C91 for the preparation of ASTM C270 Type S mortar. SMH STONEMIX is available in a standard gray color, unique to each cement plant. In some markets, colored Stone Mix may be available. Color selection may be made from the local SMH masonry cement sample kit, and is available through your SMH representative.

#### Physical Properties

Southern Heritage Masonry STONEMIX conforms to the physical requirements of ASTM C91 for Type S (see Table 1).

Masonry Cement Type	Compressive Strength ASTM C109 Min., psi (MPa)	Water Retention Minimum %	Maximum % Air
N	900 (6.2)	70	21
S	2100 (14.5)	70	19
M	2900 (20.0)	70	19

### INSTALLATION

Table 2 is a general guide for selection of mortar types. Other factors, such as type and absorption of masonry unit, climate and exposure, applicable building codes, and engineering requirements should also be considered.

Building Segment	Mortar Type
Exterior, above grade, load-bearing	N or S or M
non load-bearing parapet wall	N N or S
Exterior, at or below grade	S or M
Interior, load-bearing	N or S
non load-bearing	N

Table 2 is an abbreviated version of Table X1.1 in the Annex of ASTM C 270-06.

#### Mixing

Southern Heritage Masonry STONEMIX, when mixed with sand meeting ASTM C144, will produce a mortar that can meet either the proportion or property specifications of either the proportion or property specifications of ASTM C270 for Types S masonry mortar (Table 3 and Table 4). Machine mixing should be used whenever possible. First, add most of the water and half the sand. Next, add the masonry cement and the rest of the sand. After one minute of continuous mixing, slowly add the rest of the water. Mixing should continue for at least three minutes; extending mixing up to five minutes improves mortar qualities.

#### Admixtures

No admixtures should be used without the written approval of the architect or engineer of record.

#### Hot Weather Construction

Mortars exposed to hot winds and full sun will tend to lose workability due to the evaporation of water. Common sense precautions should be taken to protect the mortar such as shading the mixer, wetting mortar boards, covering wheelbarrows and tubs, and balancing mortar production to meet demand. If it is necessary to restore workability, mortar may be retempered by adding water and remixing. No mortar shall be used beyond 2½ hours after mixing. Please note that retempering may result in color variations of the mortar.

#### Cold Weather Construction

Mortar should be maintained at a minimum temperature of 40°F as prescribed by applicable standards. No admixtures should be used without the written approval of the architect or engineer of record.

## Proportion Specifications

Mortar Type	Masonry Cement Type N	Masonry Cement Type S	Masonry Cement Type M	Sand
N	1	–	–	2¼ – 3
S	–	1	–	2¼ – 3
M	–	–	1	2¼ – 3

## Property Specifications

Under the property requirements of ASTM C270, cement-to-sand proportions are to be in the range of 1:2¼ to 1:3½, and should meet the requirements outlined in Table 4.

Mortar Type	Compressive Strength ASTM C109 Min., psi (MPa)	Water Retention Minimum %	Maximum % Air
N	750 (5.2)	75	20
S	1800 (12.4)	75	18
M	2500 (17.2)	75	18

No changes should be made in the field to the laboratory established proportions for mortar that has been tested and accepted under the property specification, except for the quantity of mixing water.

Materials with different physical characteristics than those used in the laboratory should also not be used in the field without testing for compliance with the property specifications.

## TECHNICAL DATA

### Applicable Standards

The following standards apply to the use of SHM Stone Mix in mortar:

ASTM C91, *Standard Specification for Masonry Cements*

ASTM C144, *Standard Specification for Aggregates for Masonry Mortar*

ASTM C270, *Standard Specification for Mortar for Unit Masonry*

ASTM C780, *Standard Specification for Pre-construction and Construction Evaluation of Mortar for Plain and Reinforced Unit Masonry*

## Water

All water should be clean and free from organic material and deleterious amounts of dissolved acids, alkalies and salts.

## Precautions

Freshly mixed cement, mortar, grout or concrete may cause minor skin irritations. Avoid direct contact with skin and eyes and if contacted, wash exposed areas promptly with water. Refer to the applicable SHM product MSDS prior to use which may be obtained by calling (404) 696-9930.

## AVAILABILITY

SHM STONEMIX is available in bags in some market areas, and can be ordered by contacting SHM at (404) 696-9930.

## WARRANTY

SHM warrants that the products identified are in accordance with the appropriate current ASTM specifications. No one is authorized to make any modifications or addition to this warranty. **SHM makes no warranty or representation either expressed or implied with respect to this product and disclaims any implied warranty of merchantability or fitness for a particular purpose.**

As SHM has no control over other ingredients mixed with this product or the final application, SHM does not and cannot warrant the finished work.

**In no event shall SHM be liable for direct, indirect, special, incidental or consequential damages arising out of the use of this product, even if advised of the possibility of such damages. In no case shall SHM's liability exceed the purchase price of this product.**

## TECHNICAL SERVICES

SHM personnel are available to provide technical assistance by contacting (404) 696-9930.

Southern Heritage Masonry LLC

4530 Patton Dr SW # H, Atlanta, GA 30336

(404) 696-9930

[WWW.SOUTHERNHERITAGEMASONRY.COM](http://WWW.SOUTHERNHERITAGEMASONRY.COM)