

# PORTLAND CEMENT — LIME MIX



UNITED STATES

## PRODUCT DESCRIPTION

Portland Cement-Lime Mix for masonry mortars.

### Basic Use

CEMEX Portland Cement-Lime Mix is specially formulated and manufactured to produce masonry mortar for use in brick, block, and stone masonry construction.

### Composition and Materials

CEMEX's Portland Cement-Lime Mix is a factory blended product consisting of ASTM C150 portland cement and ASTM C207 (Type S) hydrated lime. These components are proportioned under controlled conditions to assure product consistency.

### Types

CEMEX's Portland Cement-Lime Mix products are produced in Type N, Type S and Type M strength levels for use in preparation of ASTM Specification C270 Type N, S or M cement-lime mortars, respectively.

## INSTALLATION

### Mixing

This Portland Cement-Lime Mix, when mixed with 1:2¼ to 1:3½ cubic feet of sand meeting ASTM C144 Specifications, will produce a mortar that meets the property specification requirements of ASTM C270 for Type N, Type S, or Type M portland cement-lime mortar (Table 1). Machine mixing should be used whenever possible. First, add most of the water and half the sand. Next, add the portland cement-lime mix 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	Portland Cement or Blended Cement	Hydrated Lime or Lime Putty	Sand
N	1	Over ½ to 1 1/4	2¼ – 3
S	1	Over ¼ to 1/2	2¼ – 3
M	1	1/4	2¼ – 3

## Property Specifications

Under the property requirements of ASTM C270, cement-to-sand proportions for laboratory mixed mortar are to be in the range of 1:2¼ to 1:3½, and should meet the requirement outlined in Table 2.

Mortar Type	Compressive Strength 2" Cubes at 28 days Min., psi (MPa)	Water Retention Minimum %	Maximum % Air
N	750 (5.2)	75	14
S	1800 (12.4)	75	12
M	2500 (17.2)	75	12

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

### **Limitations**

CEMEX's Portland Cement-Lime products are designed to be mixed with sand and water. The addition of any other materials to this product at the job site is not required or recommended

### **TECHNICAL DATA**

#### **Applicable Standards**

The following standards apply to the use of CEMEX's Portland Cement-Lime products:

ASTM C150 (*Standard Specification for Portland Cement*)

ASTM C207 (*Standard Specification for Hydrated Lime for Masonry Purposes*)

ASTM C144 (*Standard Specification for Aggregates for Masonry Mortar*)

ASTM C270 (*Standard Specification for Mortar for Unit Masonry*)

ASTM C780 (*Standard Test Method 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 CEMEX product MSDS prior to use which may be obtained by calling 1-800-99-CEMEX (23639).

#### **Availability**

CEMEX's Type N, S, and M Portland Cement-Lime Mix is available in bulk and bags in some market areas, and can be ordered by contacting us at 1-800-99-CEMEX (23639).

### **WARRANTY**

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

**In no event shall CEMEX 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 CEMEX's liability exceed the purchase price of this product.**

### **TECHNICAL SERVICES**

CEMEX personnel are available to provide technical assistance by contacting the number previously listed.

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