



1. Product Name

Holcim Mortamix® Rainbow Custom Color Cement-Lime™

2. Manufacturer

Holcim (US) Inc.
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3. Product Description

BASIC USE

Holcim Mortamix® Rainbow Custom Color Cement-Lime™ is available in a variety of colors that offer design flexibility and enhance the aesthetic effect of brick, block and stone masonry. The product is pre-mixed under controlled conditions to ensure exact proportions, resulting in mortar for use in a variety of applications.

- Type N is recommended for general purpose in light construction, such as above-grade walls and is also suited for stucco
- Type S is used in construction where strong lateral and compressive forces are anticipated. It is most commonly used in commercial construction but also suited for stone masonry and stucco
- Type M is suited for foundations, manholes and where extreme moisture and freeze-thaw cycles are encountered. It is ideal for high compressive loads and is specifically recommended for masonry below grade

COMPOSITION & MATERIALS

Holcim Mortamix Rainbow Custom Color Cement-Lime is a combination of cement, Type S hydrated mason's lime that meets the requirements of ASTM C 207 and pigments. The pigments are inorganic oxides. The above ingredients are combined and processed at Holcim manufacturing facilities under controlled conditions to ensure uniform performance.

TYPES

Holcim Rainbow Mortamix Custom Color Cement-Lime is available in Type N, Type S and Type M.

SIZES

Holcim Mortamix Rainbow Custom Color Cement-Lime is available in the following packaging sizes (bags):

- Type N - 32 kg (70.5 lb)
- Type S - 34 kg (75 lb)
- Type M - 36 kg (79.4 lb)

COLORS

Holcim Rainbow Mortamix Custom Color Masonry Cement-Lime is available in many standard colors, including white. In addition, colors can be custom formulated under laboratory conditions to match desired customer specifications.

BENEFITS

- Offers design flexibility
- Provides working properties, strength and durability for lasting masonry structures
- Pre-mixed under controlled conditions to ensure exact proportions

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM C 144 Standard Specification for Aggregate for Masonry Mortar
- ASTM C 150 Standard Specification for Portland Cement
- ASTM C 207 Standard Specification for Hydrated Lime for Masonry Purposes
- ASTM C 270 Standard Specification for Mortar for Unit Masonry
- ASTM C 595 Standard Specification for Blended Hydraulic Cements
- ASTM C 1157 Standard Specification for Hydraulic Cement

PHYSICAL/CHEMICAL PROPERTIES

- Holcim Mortamix Rainbow Custom Color Cement-Lime products will produce mortars meeting the property specifications of ASTM C 270 for Type N, Type S or Type M mortar, as indicated on the package
- Holcim Mortamix Rainbow Custom Color Cement-Lime also meets the requirements for prepackaged cement and lime mixtures in certain states
- Requirements for sand to be used in conjunction with these products are outlined in ASTM C 144



Rainbow Custom Color Cement-Lime

- Holcim Mortamix Rainbow Custom Color Cement-Lime will provide the working properties, strength and durability necessary for lasting masonry structures

5. Installation

PREPARATORY WORK

Holcim Mortamix Rainbow Custom Color Cement-Lime should be mixed according to ASTM C 270. Machine mixing is highly recommended. Mixing instructions are printed on each bag and shown below:

- Use 1 bag Mortamix Holcim Rainbow Custom Color Cement-Lime to 2 1/4 to 3 parts by volume of sand conforming to ASTM C 144
- First add approximately 3/4 of the water required, then add 1/2 the sand, and then 1 bag of Holcim Mortamix Rainbow Custom Color Cement-Lime to the mixer
- Finally, add the rest of the sand and sufficient water to achieve the desired field workability
- The combined materials should be mixed for 3-5 minutes after all materials are in the mixer

PRECAUTIONS

Performance

- Each batch should be mixed precisely and consistently to achieve the desired color
- Never change sand sources or amounts during the project

TABLE 1 HOLCIM RAINBOW MORTAMIX CUSTOM COLOR CEMENT-LIME PROPORTIONS BY VOLUME (PER ASTM C 270)

Mortar Type	Parts by Volume of Holcim Type M Cement-Lime	Parts by Volume of Holcim Type S Cement-Lime	Parts by Volume of Holcim Type N Cement-Lime	Aggregate
M	1	-	-	Not less than 2 1/4 and not more than 3 times the sum of the separate volumes of cementitious materials
S	-	1	-	Same as above
N	-	-	1	Same as above

TABLE 2 HOLCIM RAINBOW MORTAMIX CUSTOM COLOR CEMENT-LIME PROPERTY SPECIFICATION REQUIREMENTS PER ASTM C 270

Mortar Type	Holcim Average Compressive Strength at 28 days, min psi (MPa)	Water Retention Min %	Air Content, max %	Aggregate
M	2500 (17.2)	75	12	Not less than 2 1/4 and not more than 3 1/2 the sum of the separate volumes of cementitious materials
S	1800 (12.4)	75	12	Same as above
N	750 (5.2)	75	14 ¹	Same as above

¹ When structural reinforcement is incorporated in cement-lime mortar, the maximum air content shall be 12%.

- Do not use any other additives or admixtures
- Tool all joints to the same degree of firmness
- Avoid excessive re-tempering, which could result in color variations
- Protect masonry units from weather before and after they are set in place
- Holcim does not recommend the use of acid-based cleaning solutions

Safety

Avoid direct contact with the skin. If contact occurs, wash skin with water as soon as possible. Exposure of sufficient duration to wet Holcim Mortamix Rainbow Custom Color Cement-Lime can cause serious and potentially irreversible tissue destruction in the form of chemical burns. If Holcim Mortamix Rainbow Custom Color Cement-Lime gets into the eyes, immediately flush eyes thoroughly with water and seek medical attention. For more complete information, refer to the Material Safety Data Sheet (MSDS), which should be consulted prior to use of this product. The MSDS is available from the manufacturer upon request.

6. Availability & Cost

AVAILABILITY

Holcim Mortamix Rainbow Custom Color Cement-Lime is available throughout most of the United States. Contact Holcim about local availability.

COST

Pricing information can be obtained from the nearest Holcim Sales Office.

7. Warranty

Upon request, Holcim will provide Material Certification Reports demonstrating that Holcim Mortamix Rainbow Custom Color Cement-Lime meets or exceeds applicable ASTM standards. Holcim (US) Inc. will not guarantee finish work, having no control over use of this product. Holcim shall not be responsible for condition of cement after delivering to dealer or distributor.

8. Maintenance

In areas where cleaners and sealers are used, proper maintenance instructions should be followed. Contact the appropriate product manufacturer before application.

9. Technical Services

Technical service is available by contacting the nearest Holcim Sales Office at (888) 646-5246. With advance notice, technical service can be provided at jobsite locations.

10. Filing Systems

- SmartBuilding Index (SBI)
- Additional product information is available from the manufacturer
- www.holcim.us

Corporate Headquarters

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