



# MIAMI Mortar Cement Types N, S

## Manufacturer:

Fairborn Cement Company  
3250 Linebaugh Rd  
Xenia, OH 45385  
800-762-0040 / [www.fairborncement.com](http://www.fairborncement.com)

## Product Description:

Fairborn Cement Company’s MIAMI Mortar Cement is specifically formulated and manufactured to produce masonry mortar for use in concrete masonry units, brick, and stone masonry construction applications where flexural bond strength and lower air contents are required or preferred.

Fairborn Cement Company’s MIAMI Mortar Cement is a high quality, versatile product formulated with finely ground portland cement, mineral additives, specialty admixtures and pigments to meet a wide variety of construction requirements including colored mortar cement. All constituent materials are proportioned at the cement plant under strict quality conditions to consistently provide users with a quality product.

## Types:

Fairborn Cement Company’s MIAMI Mortar Cement is manufactured to comply with ASTM C1329 in preparation for making ASTM C270 Type S and Type N strength mortar. MIAMI Mortar Cements are designed to be mixed with clean water (free of injurious amounts of any substances that may be harmful to mortar or metal accessories in the masonry) and a masonry sand conforming to Specification C144. No further additions are required or recommended.

For a general guide of mortar type to be used based on construction application, refer to ASTM C270. Other factors to consider are type and absorption of masonry units, exposure and climatic conditions, applicable building codes and engineering practice standard requirements.

## Quality:

Fairborn Cement Company is committed to quality and takes pride in the products we manufacturer. We manufacture products using only high quality raw materials and strict quality control procedures. Fairborn Cement Company is the local leader in quality cement production.

## Standards:

The following standards apply to the use of Fairborn Cement Company’s Mortar Cements:

ASTM C1329 (Standard Specification for Mortar Cements).

ASTM C270 (Standard Specification for Mortar).

ASTM C1072 (Standard Test Methods for Measurement of Masonry Flexural Bond Strength).

ASTM C780 (Standard Practice for Pre-Construction and Construction Evaluation of Mortar for Plain and Reinforced Unit Masonry).

ASTM C778 (Specification for Standard Sand).

## Physical Properties:

MIAMI Mortar Cements conform to the physical requirements of ASTM C1329.

**Table 1: Physical Requirements of ASTM C1329 Mortar Cements.**

Mortar Cement Type	ASTM C109, 28 Day Compressive Strength Min., psi	ASTM C1072 Flexural Bond Strength Min., psi	Air Content Max., %	Water Retention Value Min., %
N	900	70	17	70
S	2100	100	15	70
M	2900	115	15	70

## Preparation:

Preparation of masonry mortar using MIAMI Mortar Cement is to be prepared in accordance with ASTM C270 under either the Proportion Specification or Property Specification Requirements as dictated by the project specifications.

**Table 2: Proportion Specification (Proportions by Volume)**

Mortar Type	Mortar Cement Type N	Mortar Cement Type S	Mortar Cement Type M	ASTM C144 Mason Sand
N	1	-	-	2 ¼ - 3
S	-	1	-	2 ¼ - 3
M	-	-	1	2 ¼ - 3

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Table 3: Property Specification

Mortar Type	Compressive Strength min., psi	Water Retention min., %	Air Content max., %
N	750	75	20
S	1800	75	18
M	2500	75	18

The property specification proportions for cement to sand ratios are to be in the range of 1:2 ¼ to 1:3 ½. Compressive strength, water retention and maximum air content should meet the requirements of Table 3.

Under the property specification, no changes shall be made to the accepted laboratory established proportions in the field, other than water content. If materials other than those used to establish conformance are to be used in the work, reestablishing conformance to the property specification is required.

Mixing of the mortar should be accomplished by means of a mechanical paddle mixer whenever possible. While the mixer is running, 1) Add 2/3 of the potable water. 2) Add ½ of the ASTM C144 sand. 3) Add Fairborn Cement Company's MIAMI Mortar Cement. 4) Add the remaining ASTM C144 sand. 5) Add the remaining potable water to achieve the desired consistency and mix for a minimum of 5 minutes.

### Hot Weather:

Hot sun, drying winds and summer temperatures can lead to rapid evaporation of the mixing water from the prepared mortar. This evaporation of water can lead to reduced workability and shorten the life of the mortar. Precautions such as shading materials and mixer, covering transfer equipment and dampening mortar boards should be used to combat the effects of hot weather.

### Cold Weather:

Prepared mortar should be mixed and maintained at a temperature above 40°F as prescribed by cold weather masonry specifications. Common methods used to meet this requirement are by heating the mixing water or aggregate. Protection of the newly installed mortar should also follow the prescribed methods outlined in cold weather masonry specifications.

### Product Precautions:

Products may cause severe burns and injuries to the skin, eyes, lungs and digestive system. Avoid contact with skin and eyes. Wash exposed skin with soap and water. In case of eye contact, flush eyes immediately and thoroughly, and in both instances, consult a physician immediately. Breathing product dust may cause nose, throat or lung irritation or choking. Prolonged exposure to products may cause lung injury, including silicosis and products may contain crystalline silica, a substance that may cause lung cancer. If breathing becomes difficult due to exposure, remove exposed person to fresh air and consult a physician. Gross ingestion of products may cause digestive system injuries or intestinal discomfort. If ingestion occurs do NOT induce vomiting, but drink plenty of water and consult a physician. Keep out of the reach of children. Follow directions and warnings on product packaging. For other precautions, please refer to the Fairborn Cement Company's Safety Data Sheet for MIAMI Mortar Cement.

### Availability:

Type N and S MIAMI Mortar cement is available in bagged quantities at:

**Kosmos Cement Company**

15301 Dixie Highway, Louisville, KY 40272

MIAMI Mortar cement can be ordered by contacting Kosmos Sales at 502-933-7331, or via email at [orders@kosmoscement.com](mailto:orders@kosmoscement.com), and is also, available through a vast network of partnering distribution companies.

For information related to MIAMICOLOR Mortar Cement, including the standard color chart, please contact your local sales representative.

### Warranty:

LIMITED WARRANTY. The products shall conform to applicable specifications of the American Society for Testing and Materials, and such other specifications. Seller, having no control over the use of the product does not guarantee finished work, nor shall seller be responsible for the condition of the product after delivery to the buyer. Charges incident to inspection or testing made by or on behalf of buyer to determine compliance with specifications shall be paid for by buyer.

EXCEPT FOR THE LIMITED WARRANTY MADE ABOVE, SELLER SPECIFICALLY DISCLAIMS ANY OTHER WARRANTY, INCLUDING ANY EXPRESS WARRANTY, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF GOODS, AND ANY IMPLIED WARRANTY OF FITNESS OF GOODS FOR ANY PARTICULAR PURPOSE, ALL OF SUCH WARRANTIES ARE EXCLUDED AND SPECIFICALLY DISCLAIMED BY SELLER.

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