

**Related Bulletins:**

Sweets BuyLine 8270  
RHEOMIX® RHEOPEL Data Sheet  
RHEOMIX® RHEOPEL Mortar  
Admixture Data Sheet  
ASTM E-514 Test Report #97-202  
(NCMA)

Master Builders Technologies  
**Admixtures**  
**ARCHITECTURAL SPECIFICATIONS**



**RHEOMIX® RHEOPEL™**  
*POLYMERIC, WATER-REPELLENT ADMIXTURE SYSTEM  
FOR CONCRETE BLOCK AND MASONRY MORTAR*

**Division 4 - Materials****Part 1 GENERAL**

The RHEOMIX® RHEOPEL Water-Repellent Admixture System is integral, long-lasting and provides water repellency for all exterior concrete masonry applications. RHEOPEL™ admixture is incorporated during the block manufacturing process, and RHEOPEL MORTAR ADMIXTURE is added to the freshly mixed mortar at time of construction. The RHEOPEL Water-Repellent Admixture System is a cost-effective, and maintenance-free alternative to externally applied treatments.

To achieve the designed performance of the RHEOPEL admixture system, proper masonry practices and techniques must be employed. Both concrete masonry units (CMU's) and masonry mortar must be treated with RHEOPEL admixtures, and be fabricated in accordance with the guidelines specified below.

**Part 2 PRODUCTS****Materials**

- A. All exterior normal weight CMU's (125lb/ft<sup>3</sup>, 2002kg/m<sup>3</sup> or greater) shall contain RHEOPEL polymeric water-repellent admixture as manufactured by Master Builders, Inc. which achieves:
  - Class E (excellent) Rating by ASTM E 514 (wind-driven rain resistance) standards, and results in 0% dampness after two rounds of independently conducted 72-hour tests; and,
  - Provides increased bond strength values vs. reference per ASTM C 1072, ASTM E 72.
- B. An optimized blend of coarse and fine aggregates and proper dosage of Rheopel admixture as determined by a Master Builders Representative using ASTM C 140, RILEM Test Method II.4 test procedures, and other water response evaluations shall be used.
- C. CMU's shall be manufactured using proper design and production methods so as to provide a consistently dense, tight, water-repellent unit.
- D. CMU's shall meet criteria of ASTM C 90 (hollow, load-bearing), ASTM C 145 (solid, load-bearing), ASTM C 55 (concrete building brick), or other.
- E. Raw materials should meet acceptability criteria of ASTM C 33, C 150.
- F. All medium and lightweight CMU's shall be manufactured to the above standards. Aggregates should comply with ASTM C 33 and ASTM C 331

## Masonry Mortar

- A. For portland cement/lime mixtures used to produce Type M, S, or N mortar, 16 fluid ounces (475 mL) of RHEOPEL Mortar Admixture shall be added to each cubic foot (0.03 m<sup>3</sup>) of cementitious material and mixed in accordance with ASTM C 270 and RHEOPEL Mortar Admixture label instructions.
- B. For each bag of pre-blended Type M, S, or N masonry cement used, 16 ounces (475 mL) of RHEOPEL Mortar Admixture should be added and mixed in accordance with ASTM C270 and RHEOPEL Mortar Admixture label instructions.

## Construction Procedures

- A. The RHEOPEL water-repellent admixture system requires the use of prescribed amounts of RHEOPEL admixture in CMU fabrication, and RHEOPEL Mortar Admixture in the masonry mortar mix.
- B. At the end of the day's construction, top courses of block should be covered to prevent water collection within the block's cores which can cause efflorescence.
- C. No retempering of masonry mortar is allowed beyond the age of 2 1/2 hours from the time of initial mixing.
- D. All mortar joints used for exterior walls should be either concave or "V" tooled for optimal water-shedding performance.
- E. Proper control-joint spacing is to be observed to allow for volume changes which may result from varying moisture conditions.
- F. Proper flashing materials and practices per NCMA TEC 19-2, 19-4, and 19-5 are to be employed for diverting water around building details.
- G. Weep holes must be incorporated at all flashed detail points for proper drainage.
- H. The use of any admixture used in combination with RHEOPEL Mortar Admixture must be approved by a Master Builders representative.

## Service and Assistance

Master Builders sales and technical representatives are available for consultation (800 MBT-9990) in the areas of mix design optimization, troubleshooting, and proper use of RHEOMIX® admixtures.

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