



The Chemical Company

Dear Specifier:

We would like to introduce you to the premier water-repellent admixture system for exterior masonry wall design. The **Rheopel® Water-Repellent Admixture System** is an innovative, patented technology available from BASF Admixtures (Master Builders brand). Our Rheopel Admixture System is a superior alternative to the traditional water-repellent systems (like the Dry Block System), providing enhanced color vibrancy, efflorescence-control and color retention.

BASF Admixtures' *Certified Water-Repellent CMU Producers* supply concrete masonry units utilizing the Rheopel Admixture System. Through sophisticated mix optimization, field production trials, and stringent test procedures, we are able to certify mix designs, admixture dosages, and production facilities. We are proud of this rapidly growing team of manufacturers throughout North America.

The **Rheopel Admixture System** consists of two individually formulated, polymeric additives:

- *Rheopel Series admixtures* are specially formulated for use in the manufacture of concrete masonry units, and may be used for other concrete products made of similar, non-plastic consistency.
- *Rheopel Mortar Admixture* is added to the accompanying masonry mortar during mixing at the job site. This System produces a highly effective means of providing moisture penetration resistance for concrete masonry walls, and is particularly useful in single-wythe masonry construction.

This System improves the quality, value, and overall aesthetics of concrete masonry construction by:

- Providing lasting protection from moisture damage
- Improving the texture consistency of manufactured concrete products
- Increasing the coverage rate of post-applied paints and coatings
- Reducing the growth potential of mold and mildew
- Reducing absorption and wicking characteristics
- Enhancing color intensity and uniformity
- Reducing potential for efflorescence

Please review the enclosed information to learn more about the Rheopel Admixture System available from Certified CMU producers. If you do not require further information, **we ask that you include the Rheopel Admixture System in your Division 04 specifications for exterior, concrete masonry wall designs**. If you would like additional information, please call 1-800-628-9990 toll-free, or visit our web-site at www.basf-admixtures.com.

Thank you for your time and consideration.

Rheopel® Admixtures

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Cleveland, Ohio 44122 USA
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www.basf-admixtures.com

**Master
Builders**

Admixture Solutions



The Chemical Company

ARCHITECTURAL SPECIFICATIONS

Note to Specifier:

BASF Construction Chemicals, LLC previously conducted business as **BASF Admixtures, Inc.** and prior to that as **Degussa Admixtures, Inc.** and **Master Builders, Inc.**

The Master Builders brand of innovative chemical admixtures and solutions that have been used in concrete for decades are now offered by **BASF – The Chemical Company**, the largest chemical company in the world

The name change to **BASF Construction Chemicals, LLC** took effect on January 1, 2007. Please update your Master Specifications to reflect the company name change

For a MS Word version of this specification, please send an email to admixtures@basf.com

Rheopel® Admixture System

Polymeric, Water-Repellent Admixture System for Concrete Masonry Units and Masonry Mortar

Division 04 - Masonry

THESE SPECIFICATIONS ARE INTENDED TO ASSIST DESIGN PROFESSIONALS IN MODIFYING STANDARD 3-PART DIVISION 04 SPECIFICATIONS TO INCLUDE THE RHEOPEL POLYMERIC, WATER-REPELLENT ADMIXTURE SYSTEM. A PRODUCT FROM THE RHEOPEL ADMIXTURE SERIES IS INCORPORATED INTO CONCRETE MASONRY UNITS DURING THE MANUFACTURING PROCESS AND RHEOPEL MORTAR ADMIXTURE IS ADDED TO MASONRY MORTAR DURING MIXING.

PROPER MASONRY DESIGN, DETAILING AND CONSTRUCTION PRACTICES SHOULD ALWAYS BE FOLLOWED WHEN USING THE RHEOPEL ADMIXTURE SYSTEM TO PROVIDE INCREASED RESISTANCE TO WATER PERMEATION.

THE FOLLOWING PARAGRAPHS ARE ADAPTABLE TO SPECIFICATION SECTIONS FOR BASIC MASONRY MATERIALS AND METHODS, CONCRETE MASONRY UNITS, AND MASONRY MORTAR, AS WELL AS SECTIONS WHICH INCLUDE BOTH MASONRY UNITS AND MORTAR. THE OUTLINE NUMBERING SYSTEM USED HEREIN IS NOT INTENDED TO COORDINATE WITH ANY PARTICULAR GUIDE SPECIFICATION SYSTEM. NUMBERS AND OUTLINE LEVELS SHOULD BE EDITED TO MATCH THE SPECIFICATIONS BEING USED.

**Master
Builders**

Concrete Masonry Units (CMU)

INCLUDE THE FOLLOWING SUBPARAGRAPHS UNDER THE PART 1 QUALITY ASSURANCE ARTICLE SPECIFYING QUALIFICATIONS OF THE CMU PRODUCER.

A. Qualifications:

1. CMU Producer: Rheopel Water-Repellent Admixture-Certified CMU Producer as approved by BASF Construction Chemicals, LLC; 800-628-9990 or 216-839-7500.

INCLUDE THE FOLLOWING SUBPARAGRAPHS UNDER THE PART 2 ARTICLE SPECIFYING BASIC CONCRETE MASONRY UNITS: IF SPECIFICATION INCLUDES A REFERENCES SECTION IN PART 1, VERIFY THAT "ASTM E 514 STANDARD TEST METHOD FOR WATER PENETRATION AND LEAKAGE THROUGH MASONRY" IS INCLUDED IN THE REFERENCES LIST.

1. Provide integral water-repellent admixture in CMU exposed to exterior weather conditions:
 - a. *Integral Polymeric Water-Repellent Admixture*: A Rheopel Admixture Series product as manufactured by BASF Construction Chemicals, LLC; 800-628-9990 or 216-839-7500.
 - b. *Required ASTM E 514 Test Results*: No visible dampness on backs of two wall specimens after 72 hours of testing.

Masonry Mortar

INCLUDE THE FOLLOWING SUBPARAGRAPH UNDER THE ARTICLE OR PARAGRAPH SPECIFYING MORTAR MATERIALS OR MORTAR ADMIXTURES:

1. *Integral Polymeric Water-Repellent Admixture*: Rheopel Mortar Admixture as manufactured by BASF Construction Chemicals, LLC; 800-628-9990 or 216-839-7500.

INCLUDE THE FOLLOWING SUBPARAGRAPHS UNDER THE ARTICLE OR PARAGRAPH SPECIFYING MORTAR MIXES:

1. Integral Polymeric Water-Repellent Admixture for Portland Cement/Lime Mixtures for Type M, S, or N Mortar – Exterior Exposed Condition: 16 fluid ounces per cubic foot (17 L/m³) of cementitious material mixed in accordance with ASTM C 270 and admixture label instructions.
2. Integral Polymeric Water-Repellent Admixture for Pre-Blended Type M, S, or N Masonry Cement – Exterior Exposed Condition: 16 fluid ounces (475 mL) per bag of cement mixed in accordance with ASTM C 270 and admixture label instructions.

– End –



The Chemical Company

1. Product Name

- Rheopel® Admixtures
- Rheopel® Mortar Admixture

2. Manufacturer

BASF Admixtures
 23700 Chagrin Blvd.
 Cleveland, OH 44122-5554
 (800) 628-9990
 (216) 839-7500
 Fax: (216) 839-8821
 E-mail: admixtures@basf.com
 www.basf-admixtures.com

3. Product Description

BASIC USE

BASF Admixtures manufactures and markets the water repellent Rheopel® Admixture System that consists of individually formulated polymeric additives. Rheopel Admixtures are used in the manufacture of concrete masonry units. Rheopel Mortar Admixture is added to the accompanying masonry mortar during mixing at the jobsite. Rheopel Mortar Admixture is available from BASF Admixtures Water Repellent Certified Block Producers. Together they produce a highly effective means of providing moisture penetration resistance for concrete masonry walls and are particularly useful in single wythe masonry construction.

The Rheopel Admixture System improves concrete masonry construction by:

- Providing lasting protection from moisture damage without the use of exterior applied sealers
- Increasing the coverage rate of post-applied paints and coatings
- Inhibiting the growth potential of mold and mildew
- Enhancing color vibrancy and color retention
- Reduced potential for efflorescence

COMPOSITION & MATERIALS

Rheopel Admixtures
 These patented technologies are specially blended polymer emulsions. They are specially formulated for optimal freeze/thaw durability when tested according to ASTM C1262. Rheopel admix-

tures have numerous applications, including paving stones, segmental retaining wall units, architectural block and concrete roof tile. Rheopel admixtures also exhibit excellent wind driven rain resistance and water repellency when used in conjunction with Rheopel Mortar Admixture. This Rheopel Admixture System is ideally suited for use in single wythe masonry construction and is a sensible alternative to parge coating back-up walls in a cavity design.

Rheopel Mortar Admixture

This product is specially formulated for the production of water penetration resistant and efflorescence controlled masonry mortar. Rheopel Mortar Admixture when used in conjunction with Rheopel Admixture-treated concrete block demonstrates outstanding resistance to moisture migration and wind driven rain when tested according to ASTM E514. Test data is available upon request. Applications include Types N, M and S masonry mortar, Portland cement stucco and masonry grout fill.

SIZES

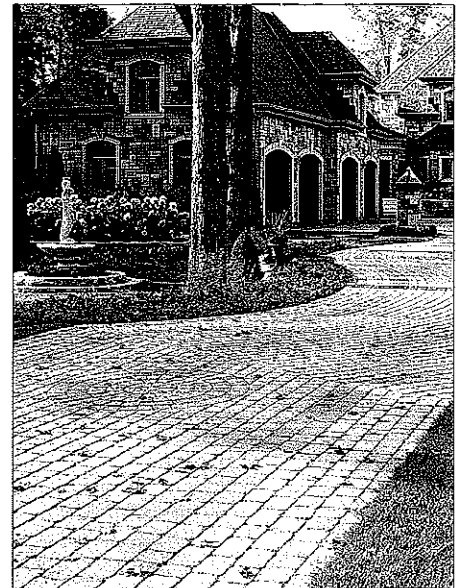
Rheopel Admixtures are available in various package sizes.

Rheopel Mortar Admixture is available in 32 fl oz (950 mL) bottles, packaged in cases of 12 (30 cases per pallet) for masonry mortar applications.

LIMITATIONS

Water repellency of mortar joints is influenced by their ability to resist moisture wicking and to shed the flow of water. The addition of Rheopel Mortar Admixture imparts water repellency throughout the mix. However, joints must also be properly tooled and configured to achieve maximum performance. A concave-tooled mortar joint has been shown to produce the best results by both the National Concrete Masonry Association (NCMA) and Brick Institute of America (BIA); therefore, concave tooling is recommended whenever Rheopel Mortar Admixture is incorporated.

Rheopel Admixtures will not compensate for flaws in building design, materials, mix proportions, improper production procedures or improper construction methods. BASF Admixtures is not responsible for inappropriate use of any admixtures. Proper masonry mortar proportioning according to ASTM C270 and mixing according to label instructions are required.

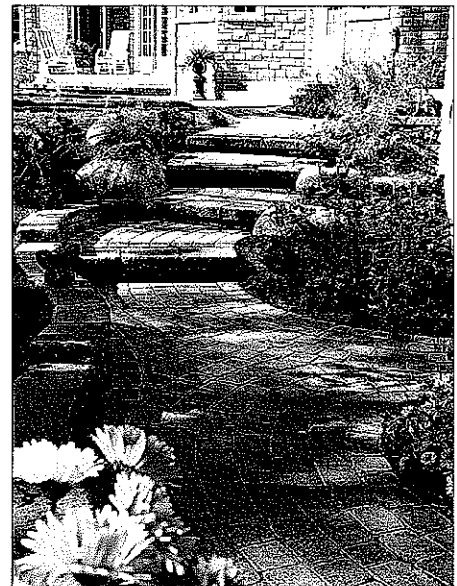


Rheopel has applications in concrete masonry walls, segmental retaining walls, interlocking pavements and concrete roof tile.

4. Technical Data

APPLICABLE STANDARDS

- ASTM International
- ASTM C140 Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units



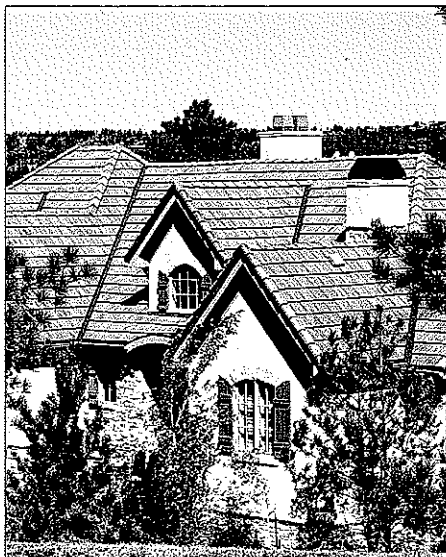
Rheopel provides color vibrancy, color retention, and freeze/thaw durability enhancements for concrete masonry landscapes.





The Rheopel Admixture System provides lasting protection for interior and exterior block walls

- ASTM C270 Standard Specification for Mortar for Unit Masonry
- ASTM C1072 Standard Test Method for Measurement of Masonry Flexural Bond Strength
- ASTM C1262 Standard Test Method for Evaluating the Freeze-Thaw Durability of Manufactured Concrete Masonry Units and Related Concrete Units



Rheopel Admixtures provide lower absorption, increased flexural strength, and color vibrancy to concrete roof tile

- ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
 - ASTM E514 Standard Test Method for Water Penetration and Leakage Through Masonry
- National Concrete Masonry Association (NCMA)
- TEK 8-2A, Removal of Stains from Concrete Masonry
 - TEK 10-1A Crack Control in Concrete Masonry Walls
 - TEK 19-2A Design for Dry Single-Wythe Concrete Masonry Walls
 - TEK 19-4A, Flashing Strategies for Concrete Masonry Walls
 - TEK 19-5A Flashing Details for Concrete Masonry Walls

PHYSICAL/CHEMICAL PROPERTIES

Performance data, test reports and additional product information are available upon request

5. Installation

PREPARATORY WORK

Handle and store product according to BASF Admixtures recommendations

METHODS

Application, usage, dose rates and other recommendations are available from the manufacturer. Contact BASF Admixtures or refer to their published product information.

PRECAUTIONS

Admixtures must be protected from freezing and are no longer usable after freezing has occurred. Admixtures must be protected from sustained temperatures above 105 degrees F (41 degrees C)

Remove excess mortar promptly and clean any residue using procedures recommended in NCMA TEK 8-2A

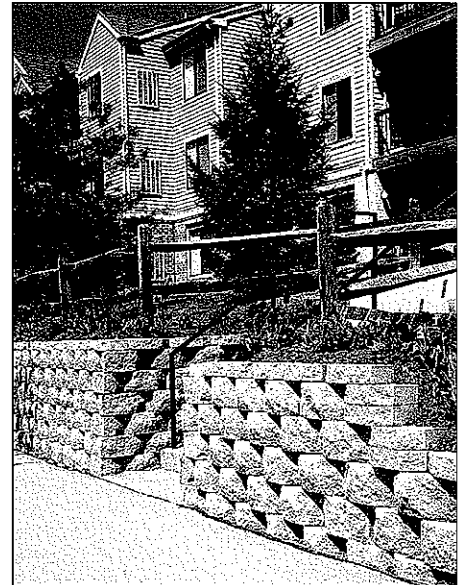
BUILDING CODES

Current data on building code requirements and product compliance may be obtained from BASF Admixtures technical support specialists. Installation must comply with the requirements of all applicable code jurisdictions

6. Availability & Cost

AVAILABILITY

Contact manufacturer for information on availability, including local distributors and BASF Admixtures' Water Repellent Certified Block Producers



Rheopel provides the most advanced technology to optimize water repellency and efflorescence control

COST

Budget installed cost information may be obtained from a local distributor or fabricator or through the manufacturer

7. Warranty

Contact the manufacturer for specific warranty information

8. Maintenance

No maintenance required

9. Technical Services

A staff of trained service personnel offers design assistance and technical support. Design details regarding flashing and weep hole provisions are available from the National Concrete Masonry Association. For technical assistance, contact BASF Admixtures

10. Filing Systems

- Reed First Source
- Additional product information is available from the manufacturer upon request

