

**Related Bulletins:**

Sweet's BuyLine - 8270  
CSI Spec - Data Sheet  
Control-Blok Guide Specifications  
Quality Control Test Report Sample  
ASTM E-514 Test Report #97-202  
(NCMA)  
Control-Blok Architectural Packet

Master Builders Technologies

## SPECIFICATION BULLETIN

**SECTION 04200  
CONTROL-BLOK®***WATER LEAKAGE-CONTROLLING CONCRETE MASONRY SYSTEM***PART 2 PRODUCTS****2.01 MATERIALS**

- A. Control-Blok water leakage-controlling concrete masonry system as supplied by Control-Blok producers licensed by Master Builders, Inc. 23700 Chagrin Blvd. Cleveland, Ohio 44122 Phone: (800) MBT-9990 Fax: (216) 831-3470, Newblock Corp., 1635 Hwy. 2, P.O. Box 309 Belle River, ONT N0R 1A0 Phone (519) 727-5255 Fax: (519) 727-5562.
- B. Load bearing concrete masonry units shall comply with ASTM C 90, and exceed all performance requirements of the specification.
- C. Weight Classification: Normal, medium, or lightweight CMU's using aggregates that comply with ASTM C 33 and ASTM C 331.
- D. Units shall be of manufacturers standard color and texture unless otherwise indicated.
- E. Units shall contain RHEOMIX® RHEOPEL polymeric, two-part water repellent admixture system for concrete block and masonry mortar which achieves an "E" (excellent) rating by ASTM E 514 standards as supplied by Master Builders, Inc.
- F. Units shall incorporate water leakage controlling design features that prevent moisture migration to interior surfaces.
- G. Representative sample units shall meet a minimum water permeation resistance equivalent to a 62.5 mi. (100Km) per hr. wind-driven rain.
- H. Units shall be laid using Type "S" masonry mortar prepared in accordance with ASTM C 270 incorporating Rheomix Rheopel Mortar Admixture per label instructions as supplied by Master Builders, Inc.
- I. System shall be proven by an NCMA-certified, independent laboratory to provide 0% dampness and no water leakage at back of ASTM E 514 test wall, and allow less than .3 liters of total water collection in the core areas of the block after 72 hours of testing.

**2.02 MIXES**

- A. Mixes used for unit fabrication shall contain portland cement that complies with ASTM C 150.
- B. Pozzolans such as Type "C" or Type "F" Fly Ash shall comply with ASTM C 311.
- C. Coarse and fine aggregates which are optimally blended for density and water permeation resistance and comply with ASTM C 33 shall be used.
- D. Iron oxide pigments complying with ASTM Standards may be included per manufacturers instructions for use.
- E. Mixes shall contain the proper amount of RHEOMIX RHEOPEL Integral Water Repellent Admixture as prescribed and optimized by a Master Builders, Inc. representative to achieve maximum resistance to water permeation.

### **2.03 FABRICATION**

- A. Control-Blok masonry units are exclusively manufactured by Control-Blok producers as licensed by Master Builders, Inc. and Newblock Corp.

### **2.04 SOURCE QUALITY CONTROL**

- A. Control-Blok masonry units that represent each production set-up and every production run of 10,000 units, per ASTM C 90, shall be tested in accordance with ASTM C 140 for density, absorption, and compressive strength; water permeation resistance tests as required by, and in accordance with the Control-Blok Quality Control Program shall also be performed.
- B. Control-Blok masonry units shall exceed all minimum requirements of both ASTM C 90, and meet or exceed the Water Permeation Resistance values mandated by Master Builders, Inc. and Newblock Corp.
- C. Test reports including all parameters described in 2.04 A,B, shall be provided by manufacturer on a per project basis

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Control-Blok Masonry Units shall be installed per manufacturer's instructions with **water leakage controlling features facing upward during construction.**
- B. Control-Blok masonry units shall be laid in **face shell mortar bedding** so as not to interfere with interior water controlling design features.
- C. Control-Blok masonry unit construction shall utilize **Type "S"** masonry mortar prepared as specified in section 2.01H.
- D. Design and Construction details **must observe** all applicable design codes, incorporating the recommendations of NCMA TEK10-1 Design of Concrete Masonry for Crack Control, TEK 19-2 Design of Dry Concrete Masonry Walls, TEK 19-4 Flashing Concrete Masonry, TEK 19-5 Use of Flashing in Concrete Masonry Walls.

### **3.02 PROTECTION OF MASONRY**

- A. During construction, cover shall be provided for tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover shall extend a minimum of 24 inches down both sides of walls and be securely fastened in place.
- B. Window and door frame surfaces and other similar materials with painted or integral finishes shall be protected from mortar droppings during construction.
- C. Sills, ledges, and projections shall be protected from mortar droppings during construction.
- D. Protect base of walls from rain-splashed mud and mortar splatter by means of coverings spread on ground and over wall surfaces.
- E. Floor and roof loading shall not commence for at least 12 hours and concentrated loads for at least 3 days after building masonry walls or columns.

**3.03 FLASHING/WEEP HOLES**

- A. 8 and 12 inch single-wythe masonry walls shall be constructed with double-wythe masonry units at the bottom course for flashing and weep hole provision.
- B. Install embedded flashing and weep holes in masonry at the bottom course, shelf angles, lintels, ledges, doors, windows and other obstructions to the downward flow of water in the wall, and where indicated.
- C. Masonry surfaces shall be prepared so that they are smooth and free from projections which can puncture flashing. Place through-wall flashing on a sloping bed of mortar and cover with mortar. Seal penetrations in flashing with adhesive, sealant, or tape as recommended by the flashing manufacturer, before covering with mortar.
- D. At lintels and shelf angles, flashing shall extend a minimum of 4 inches into the masonry at each end.
- E. Extend flashing from exterior face of outer masonry wythe, through the outer wythe and turn up a minimum of 4 inches and pass through the inner wythe to within 1/2 inch of the interior wall face in exposed masonry. Where interior surface of inner wythe is concealed by furring, extend flashing completely through the inner wythe and turn up approximately 2 inches unless otherwise indicated.
- F. At heads and sills, extend flashing as specified in 3.03 E. unless otherwise indicated and turn up ends not less than 2 inches to form a pan.
- G. Install flashing in masonry veneer walls as specified in 3.03 E. and bring flashing up face of sheathing at least 8 inches and behind air infiltration barrier/building paper.
- H. Turn down flashing at exterior face of masonry to form a drip edge. Cut off flashing flush with face of wall after masonry wall construction is completed.
- I. Install weep holes in head joints in exterior units of the first course of masonry immediately above embedded flashing. Weep holes shall be spaced at intervals of 32 inches or less. Cavities and weep holes shall be kept free of obstruction by means of mortar catch installation.

**3.04 CONTROL JOINTS**

- A. Install control and expansion joints in unit masonry where indicated. Build in related items as the masonry progresses. Do not form a continuous span through movement joints unless provisions are made to prevent in-plane restraint of wall and partition movement.
- B. Install pre-formed control joint gaskets designed to fit standard sash block.

**3.05 CLEAN UP**

- A. Clean concrete masonry by means indicated in NCMA TEK 8-2 based on type of stain present on exposed surface.

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