



ARCHITECTURAL SPECIFICATIONS

Tech Shield System

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 TECH SHIELD WATER-REPELLENT ADMIXTURE SYSTEM. A PRODUCT FROM THE TECH SHIELD ADMIXTURE SERIES IS INCORPORATED INTO CONCRETE MASONRY UNITS DURING THE MANUFACTURING PROCESS AND TECH SHIELD MORTAR ADMIXTURE IS ADDED TO MASONRY MORTAR DURING MIXING.

PROPER MASONRY DESIGN, DETAILING AND CONSTRUCTION PRACTICES SHOULD ALWAYS BE FOLLOWED WHEN USING THE TECH SHIELD 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.

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: Qualified Tech Shield Water-Repellent Admixture System Producer as approved by Innovative Concrete Technology, LLC; 908 453-2737.

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 E514 STANDARD TEST METHOD FOR WATER PENETRATION AND LEAKAGE THROUGH MASONRY" IS INCLUDED IN THE REFERENCES LIST.

1. Provide integral water-repellent admixture in all CMU exposed to exterior weather conditions:
 - a. *Integral Water-Repellent Admixture:* A Tech Shield Series product as manufactured by Innovative Concrete Technology, LLC; 908 453-2737.
 - b. *Required ASTM E514 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 Water-Repellent Admixture:* Tech Shield Mortar Admixture as manufactured by Innovative Concrete Technology, LLC; 908 453-2737

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

1. Integral Water-Repellent Admixture for Portland Cement/Lime Mixtures for Type M, S, or N Mortar – Exterior Exposed Condition: 8oz per bag of cementitious material mixed in accordance with ASTM C270 and admixture label instructions.
2. Integral Water-Repellent Admixture for Type N, S, or M Masonry Cement - Exterior Exposed Condition: 4oz per bag of masonry cement mixed in accordance with ASTM C270 and admixture label instructions.
3. Integral Water-Repellent Admixture for Pre-Blended Masonry Mortar – Exterior Exposed Condition: 8oz per 6 bags (or 6ft³ of bulk) masonry mortar mixed in accordance with ASTM C270 and admixture label instructions.

