

Frequently Asked Questions

MasterPel[®] Water-Repellent Admixture System

For Concrete Masonry Walls

Overview

The MasterPel Water-Repellent Admixture System is made up of individually formulated polymeric additives. When used together, MasterPel Water-Repellent Admixture Systems create the most effective water-repellent system for masonry projects in the industry. The MasterPel Water-Repellent Admixture System should be specified whenever water-repellent concrete masonry is desired. The System is able to improve the quality, value, and overall aesthetics of concrete masonry construction.

Q: What does the MasterPel Water-Repellent Admixture System consist of?

A: The MasterPel Water-Repellent Admixture System comprises the use of a MasterPel Water-Repellent Admixture System and a MasterPel integral water-repellent mortar admixture, respectively, in the concrete masonry units (CMUs) and mortar in masonry walls. The MasterPel Water-Repellent Admixture System for CMUs are available in liquid form only, but the MasterPel water-repellent mortar admixtures are available in both liquid and powder form.

Q: Will the use of the MasterPel Water-Repellent Admixture System in a wall affect the adhesion of a subsequent coating, such as paint, stucco or antigraffiti coating?

A: Masonry walls that incorporate the MasterPel Water-Repellent Admixture System can be painted with either latex- or oil-based paints and can also be sealed with silane/ siloxane-based post-applied sealers. The recommendations of the paint or sealer manufacturer should be followed to ensure optimum performance. Master Builders Solutions recommends a trial application to verify compatibility, prior to the application of a surface coating.



Q: Does Master Builders Solutions offer waterrepellent coatings or sealers that could be applied on masonry walls that incorporate the MasterPel Water-Repellent Admixture System?

A: Master Builders Solutions provides a full line of field applied water-repellent coatings and sealers for concrete masonry. For additional information, please go to www.master-builders-solutions.com/en-us or contact the technical support group at (800) 243-6739.



Q: Is the water-repellency and efflorescence control performance of the MasterPel Water-Repellent Admixture System still effective if the CMUs are split, burnished, polished, or have other surface texture treatments applied during the manufacturing process?

A: Subsequent splitting or polishing of CMUs should not compromise the performance of the MasterPel Water-Repellent Admixture System. If an unusual surface texture treatment is required, the masonry manufacturer should be contacted for guidance. The masonry manufacturer may contact Master Builders Solutions if necessary.

Q: Some coating contractors use a tube affixed to the wall (e.g. RILEM) to determine the permeability of masonry and the application rates of their coatings. Is this test applicable to evaluate the performance of the MasterPel Water-Repellent Admixture System?

A: The RILEM Tube test method was originally developed for natural building stones in Europe several years ago. However, some manufacturers use a modified version of the test to assess the movement of water through masonry or assess the effectiveness of surface-applied water repellents.

NCMA's CMU Water-Repellency Task Group evaluated the RILEM Tube test method in 2007 and came to the conclusion that the test provides too much head pressure over a very small test area. Hence, the results do not properly characterize the water-repellency of CMUs. So, the Task Group dismissed adoption of the test method for field use.

There are standard test methods available to test the waterrepellency of the masonry walls and CMUs in the laboratory. These include: the wind-driven rain test on a wall system (ASTM E 514), as well as CMU tests provided in NCMA TEK 19-7 Characteristics of Concrete Masonry Units with Integral Water Repellent, and the NCMA Standards. These test methods should be used to determine the water repellency of masonry, both in a wall system and in the individual CMU, in the laboratory. Please be aware that there is not a "pass" or "fail" result in these tests, but rather, an indication of the overall water repellency.

Q: Should MasterPel admixture products be used in the masonry infill grout if the MasterPel Water-Repellent Admixture System is used in a masonry wall?

A: It is not necessary to use MasterPel in the infill grout. The block and mortar system has been tested and will perform as required by the recognized building codes without the grout being treated. However, a suitable water-reducing admixture (normal, mid-range or high-range) can be used in the masonry grout to reduce the quantity of water needed to achieve the required slump. This effectively reduces the amount of water that could otherwise lead to efflorescence, if in excess.

Q: Does Master Builders Solutions have recommended procedures for cleaning masonry treated with MasterPel admixtures?

A: Master Builders Solutions recommends following the NCMA guidelines outlined in TEK 8-3A, Control and Removal of Efflorescence, for masonry treated with MasterPel admixtures.

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