

TECHNICAL DATA SHEET



MOXIE SHIELD 1900

GROUT & MORTAR WATERPROOFING ADMIX

A NON-TOXIC, READY-TO-USE, LIQUID ADMIXTURE FORMULATED FOR CEMENTITIOUS GROUT & MORTAR TO PREVENT WATER MIGRATION AND ENHANCE DURABILITY.

AT A GLANCE

MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture is designed to waterproof and enhance cementitious mortar and grout construction. MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture creates a complex chemical reaction by converting the by-products of cement hydration into a higher density cementitious material. The unique chemistry of MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture forms an integral colloidal gel membrane prior to initial set. These colloidal gels prevent the formation of capillary pathways that would be formed as the fresh mix cures. The gels restrict the rapid evaporation of surface water and permanently convert into additional hardened cement material.

RECOMMENDED USES

For use on above and below grade:

- Masonry Walls
- Repairs
- Joints
- Cracks
- Tension anchors
- Basements
- Swimming Pools
- Tunnels and Subway Systems
- Commercial & Industrial

ADVANTAGES

- Inhibits water vapor transmission
- Waterproof cementitious matrix
- Stops alkali efflorescence
- Increases compressive and flexural strength
- Provides a shrinkage compensating thermal barrier
- Plasticizer-like characteristics
- Retains moisture during initial curing
- Resists scaling, spalling and flaking
- Resists lichen, moss and other accretions
- Increases freeze-thaw durability
- Increases surface hardness
- Corrosion inhibitor
- Pumping and finishing aid
- Resistant to acids, oils, fats and solvents
- Resists rust and waterborne stains

DURABILITY & SUSTAINABILITY

- Building for future generations – The MOXIE SHIELD technology strengthens the inner structure of cementitious grout and mortar and leads to longer lasting quality structures.
- LEED Certification: MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture increases available LEED credits for projects.
- Zero VOC (EPA 24 VOC) – The MOXIE SHIELD technology is based on inorganic compounds.
- Non-Toxic/Non-Hazardous – The liquid MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture is not toxic or hazardous; therefore, when protecting grout and mortar from moisture intrusion it will not release toxic or hazardous emissions.
- Water-Based – The technology is a water-based carrier for inorganic ingredients.

HARDENED PROPERTIES

Compressive Strength

MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture adds an increased level of robustness to the grout or mortar mix, especially when less than ideal conditions are present during the application.

Flexural Strength

Along with an increase of compressive strength, an increase in flexural strength is expected proportional to the compressive strength increase.

Length Change

MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture mixes has shown reduced shrinkage compared to control mixes.

DOSAGE RATE/USE

16 oz per cwt (1040 ml/100 kg) of cementitious materials. Include any other cementitious materials (such as fly ash) in the calculation. The proper amount of MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture to a minimum of 20% of batch water.

Reduce an equal amount of batch water from the mix. Continue the batching process, including cementitious materials, aggregates, remaining batch water and other additives. Do not exceed a 0.52 w/(c+p) ratio regardless of slump/workability.

PUMPING

MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture has characteristics of a pumping aid. There will be less line pressure in a concrete pump.

WORKABILITY

During mixing the grout or mortar may appear to be too stiff. It will, however, have the workability and finishing characteristics of a mix that is more workable than visually appears.

PACKAGING

MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture is available in 1 gal (3.8 L), 5 gal (18.9 L) pails, 55 gal (208 L) drums and 275 gal (1041 L) totes.

HANDLING AND STORAGE

- Handling: Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Remove with running water or a damp cloth immediately. Masks and gloves are recommended.
- Due to pH level, DO NOT allow this product to come in contact with plant life or leather.
- DO NOT allow product to come in contact with glass, porcelain or ceramic tile, aluminum, zinc or galvanized steel. Product will permanently etch or erode the surface. Must be rinsed with running water or removed with damp cloth immediately.
- Storage: Keep the container closed. Store in clean steel or plastic containers.
- Keep separate from acids, reactive metals, and ammonium salts. Store above 40°F / 4.5°C.
- Indefinite shelf life. DO NOT ALLOW PRODUCT TO FREEZE.

ADDITIONAL INFORMATION

During low ambient temperatures, an accelerator may be used. DO NOT USE CHLORIDE ACCELERATORS. In high ambient temperatures, or if a delayed set time is desired, a set retarder may be used. MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture in the mix will retain surface moisture to assist the curing process. If additional protection from surface moisture evaporation is needed, fog misting, or an evaporation retardant may be used.

MANUFACTURERS GUARANTEE

MOXIE SHIELD 1900 Grout & Mortar Waterproofing Admixture is guaranteed to perform and be manufactured per the specifications contained in the Moxie Engineering documentation.

RELATED DOCUMENTS

Application Procedures
Safety Data Sheet