

TECHNICAL BULLETIN: #18-102

**ENGINEERING/CONSTRUCTION CONSIDERATIONS*****MOXIE SHIELD 1800***
CONCRETE WATERPROOFING ADMIXTURE**FINISHING, CURING, VAPOR BARRIERS AND BONDBREAKERS****1. FINISHING**

MOXIE SHIELD 1800 Concrete Waterproofing Admixture has finishing properties similar to a plasticizer. The slump will be slightly less; however, the mix will exhibit better workability. Equipment and tools clean up much easier. Moxie 1800 will slightly accelerate the set time of the concrete mix based on ASTM C94 (Specification for Readymix Concrete Placement Temperatures and Procedures) to an ambient temperature as low as 50° F. All current non-chloride set accelerators in the concrete industry are compatible with MOXIE SHIELD 1800 Concrete Waterproofing Admixture provided they are dispensed separately. MOXIE SHIELD 1800 Concrete Waterproofing Admixture is not compatible with calcium chloride based set accelerators.

2. CURING/SEALER/HARDENING COMPOUNDS

Silicate-based/silicate-blend formulations may not be necessary or compatible.

These compounds require some penetration into the surface of the concrete to react with the calcium hydroxides. Since MOXIE SHIELD 1800 Concrete Waterproofing Admixture consumes much of the calcium hydroxide, these types of compounds may not penetrate. Sonneborn and Creteseal are just a couple of the many compounds which may be incompatible. Coatings which are acrylic, urethane and epoxy-based are compatible. Commercial carnauba wax is compatible. MOXIE SHIELD 1800 Concrete Waterproofing Admixture restricts the rapid loss of surface water under the performance criteria of ASTM C309 (Specification for Membrane Forming Curing Compounds). However, fog-mist curing with water may also be used in temperatures in excess of 90° F and in conditions where extreme evaporation exist, such as low humidity with high winds.

3. VAPOR TRANSMISSION, VAPOR RETARDERS/BARRIERS

The requirements of a vapor barrier must have a Water Vapor Transmission perm rate of 0.1 or less. This requirement is specified in ASTM E1745 (Specification for Vapor Retarders). MOXIE SHIELD 1800 Concrete Waterproofing Admixture has a perm rate one magnitude less than the perm rate requirements of ASTM E1745. The specification for testing compliance is ASTM E96 Water Vapor Transmission of Materials. The perm rating of MOXIE SHIELD 1800 Concrete Waterproofing Admixture is approximately 0.02 perm for a 6 inch-thick concrete slab. Therefore, sand and visqueen vapor barrier becomes optional with the use of MOXIE SHIELD 1800 Concrete Waterproofing Admixture, in slab-on-grade construction. A vapor barrier will slow down the dehydration of concrete and extend the time for the final chemical process of MOXIE SHIELD 1800 Concrete Waterproofing Admixture. The time of dehydration may be three to six additional months before flooring can be installed, weather dependent.

4. BONDBREAKERS

Bondbreakers which are CHEMICALLY REACTIVE are compatible with MOXIE SHIELD 1800 Concrete Waterproofing Admixture. Allow the MOXIE SHIELD 1800 Concrete Waterproofing Admixture approximately one to two weeks of cure time prior to application of bondbreaker. Follow all manufacturer's instructions.