



Vapourproofing Concrete. Strengthening Foundations.

## **MOXIE SHIELD 1800 ADMIXTURE TECHNICAL BULLETIN - #18-102**



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Have more questions?  
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### **ENGINEERING/CONSTRUCTION CONSIDERATIONS**

## **FINISHING, CURING, VAPOR BARRIERS AND BONDBREAKERS**

### **1. FINISHING**

Moxie 1800 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 C-94 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 1800 Admixture provided they are dispensed separately. Moxie 1800 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 1800 Admixture consumes much of the calcium hydroxides, 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 1800 Admixture restricts the rapid loss of surface water, under the performance criteria of ASTM C309 Specification for Membrane Forming 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 perms or less. This requirement is specified in ASTM E1745 Specification for Vapor Retarders. Moxie 1800 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 1800 Admixture is approximately 0.059 perm. Therefore, sand and visqueen vapor barrier becomes optional with the use of Moxie 1800 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 1800 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 1800 Admixture; MAXI TILT "E", Dayton JP-6 or equal are acceptable. Allow the Moxie 1800 Admixture approximately one to two weeks of cure time prior to application of bondbreaker. Follow all manufacturer's instructions.