MOXIE 1500 CONCRETE SEALER APPLICATION PROCEDURES

INDICATIONS OF MOISTURE MIGRATION

1. Dusting, efflorescence and alkali.
2. Mats or boxes left on floor become wet or damp in a short period of time.
3. Indications of moisture migration in concrete where flooring materials have been installed: Warping, curling, cracking, seam separation, discoloration, mold or mildew, rusty nails in tack strips. Bubbling, peeling, a lumpy surface, or cracks visible through coatings or flooring materials.
4. Efflorescence or alkali present at flooring joints and chemical attack on the adhesive bond.

PRE-TESTING

If flooring materials are to be installed there are many tests, which are all applicable **prior** to the application of MOXIE 1500 CONCRETE SEALER. The one most practical for non-destructive testing: ASTM D4263 – Standard Test for Indicating Moisture in Concrete by the Plastic Sheet Method. A Dew Point Hygrometer must be used in conjunction with the Plastic Mat to obtain quantitative results as per ASTM E1907, method 7.9, to test for relative humidity. The electrical probe (protimeter) and the anhydrous calcium chloride test are two other tests. Ambient humidity, temperature, and dew point, play a key role in the test results and must be recorded.

CONCRETE SUBSTRATE PREPARATION

Substrate preparation is the single most important factor when applying MOXIE 1500 CONCRETE SEALER. MOXIE 1500 CONCRETE SEALER is a chemically reactive, penetrating sealer and MUST penetrate to be effective. Concrete slabs less than six months old usually do not need any preparation. Perform the “Water Absorption Test” to verify absorption. On existing slabs remove any existing flooring materials, finishes, wax, grease, surface sealers, paints, floor adhesives or any other materials which might impede the proper absorption and penetration of MOXIE 1500 CONCRETE SEALER.

WATER ABSORPTION TEST: The surface of the concrete MUST BE PROPERLY and AGRESSIVELY ABRADED to expose a surface that allows absorption of a water-based product. That is, if you were to pour a couple of tablespoons of water on the sidewalk the surface would be porous enough that the water would spread out and absorb within 15 to 20 minutes. Beadblast, scarify, or grind with a diamond blade to expose a comparable absorptive surface, on older slabs this may be down to where the aggregate begins to show. Acid etching is not acceptable and not effective. The age of the concrete determines to what degree the surface must be abraded. Generally the older the slab the more aggressively it will need to be abraded. It is the contractors responsibility to provide an absorptive enough surface to allow proper penetration of MOXIE 1500 CONCRETE SEALER.

CRACKS & EXPANSION JOINTS

Cracks, structural cracks, saw cuts, and expansion joints must be repaired and filled. MOXIE 2000 Super Patch is required. Refer to the MOXIE 2000 Super Patch Technical Specifications sheet. Cracks under **1/4”** in width must be ‘V’ grooved, or a “crack chaser” must be used to provide adequate bond.

MOXIE 1500 CONCRETE SEALER INSTALLATION PROCEDURES

A. **DO NOT APPLY BELOW 40^{O} F, DO NOT APPLY IN RAIN.**

B. Perform the "Water Absorption Test".

C. Mist surface to dampen the substrate.

D. Apply two or more applications, depending on the porosity, of MOXIE 1500 CONCRETE SEALER, full strength, according to the following:

Apply the first coat of MOXIE 1500 CONCRETE SEALER using a low pressure back-pack, garden type or Hudson sprayer or by pouring and brooming, evenly over the concrete substrate. Apply second application when the surface appears to be evenly damp yet dry to the touch, approximately 90% dry. Areas, which absorb rapidly, must have more product applied in these areas. Regulate the absorption of product based on areas, which are absorbing slowly, touching up areas, which are absorbing rapidly, until surface appears to be drying evenly.

1. Do not leave any puddling in low areas of the concrete. Product must absorb evenly and dry to the touch within 45 minutes. If allowed to cure in low areas MOXIE 1500 CONCRETE SEALER will dry on the surface and become difficult to remove. Broom around from the low to high areas with a stiff bristle broom to ensure even absorption. Immediately after the second application has absorbed and has a dry look, mist with clean clear water. Proper and complete absorption will indicate an even, drying look.

2. After 16 -24 hours, flood with water twice per day. Broom off any efflorescence until no more efflorescence appears, this may take two days to a week or more. If flooring is to be installed, 36-48 hours after last flooding proceed with the ASTM D4263 - Plastic Sheet Test and ASTM E1907 method 7.9. Refer to MOXIE 1500 CONCRETE SEALER - TESTING PROCEDURES.

ASTM D4263 - PLASTIC SHEET TEST & ASTM E1907

Due to the chemical properties of MOXIE 1500 CONCRETE SEALER, the only applicable tests are these ASTM tests. A Dew Point Hygrometer must be used in conjunction with the plastic sheet to provide quantitative results under ASTM E1907, method 7.9. After 72 hours, if the tape is stuck tightly and there is no dampness, discoloration, or damp odor and relative humidity and other test readings are within the test procedures, flooring may be installed. If flooring materials, epoxies, or coatings of ANY type are to be installed, these are the only tests which are applicable. Perform a pH test to confirm compatibility with adhesives. Make sure adhesive to be used is suitable for use over a NON-POROUS, IMPERMEABLE and NON-ABSORPTIVE SURFACE. Additionally, comply with adhesive manufacturers requirements for proper trowel notch depth, width and spacing

DO NOT USE THESE TESTS ON A MOXIE TREATED FLOOR:

A. The calcium chloride test is not acceptable and will remove approximately 50% of the moisture from the 1" top of the concrete making this area void of the necessary moisture to complete the chemical process. Moisture from these jells will give an erroneously high reading.

B. An electrical conductivity or probe test is not acceptable. The problem moisture is initially converted into a colloidal gel which will indicate a flow of current. In many cases this colloidal gel may indicate an erroneously high reading.