

TECHNICAL DATA SHEET



MOXIE SHIELD 1500 ***PENETRATING CONCRETE SEALER***

A READY TO USE, LIQUID SEALER/HARDENER, THAT PENETRATES AND SEALS CONCRETE FOR THE PREVENTION OF WATER VAPOR MIGRATION AND ALKALI EFFLORESCENCE. PROTECTS AND PRESERVES CONCRETE AND MASONRY AGAINST MOISTURE-CAUSING PROBLEMS.

AT A GLANCE

MOXIE SHIELD 1500 Penetrating Concrete Sealer is suitable for new and existing concrete and all other forms of cementitious construction and products. The superior sealer protects and preserves all above and below grade, vertical and horizontal concrete surfaces. MOXIE SHIELD 1500 Penetrating Concrete Sealer undergoes a chemical reaction with the by-products of cement hydration to form the highest density of cementitious materials. It dramatically enhances the natural characteristics of concrete and reduces the capillary voids to near zero.

RECOMMENDED USES

For use on above and below grade:

- Arenas
- Basements
- Bridges
- Concrete Pipes
- Foundations
- High subgrade moisture conditions
- Levees & Dams
- Moisture/Acid exposed surfaces
- Parking Structures
- Retaining Walls
- Secondary Containment Structures
- Sewage and Water Treatment Plants
- SRW
- Swimming Pools
- Tunnels and Subway Systems
- Underground Vaults

ADVANTAGES

- Stops moisture and vapor migration
- Resists reinforcing steel corrosion and deterioration
- Improves weathering resistance
- Negative and/or positive side application
- Dust-proofs the surface
- Resists hydrostatic pressure up to 100 psi
- Resists chloride intrusion
- Dramatically increases surface hardness
- Prevents efflorescence
- Increases freeze-thaw durability (exceeds 600 cycles)
- Prevents mildew and fungi
- Resists acid attack
- Adds density and bond strength
- Penetration of up to 6 inches
- Cures concrete uniformly
- Preserves and prepares masonry for paints, coatings and adhesives

PROVEN PERFORMANCE

MOXIE SHIELD 1500 Penetrating Concrete Sealer has been performing in laboratory and jobsite settings for over 50 years and has demonstrated effectiveness in curing, surface hardening/strengthening, freeze-thaw durability and water vapor transmission.

SUSTAINABILITY

- **Building for future generations:** The MOXIE SHIELD technology strengthens the inner structure of concrete and leads to longer lasting quality structures.
- **LEED Certification:** MOXIE SHIELD 1500 Penetrating Concrete Sealer increases available LEED credits for projects.
- **Zero VOC (EPA 24 VOC):** The MOXIE SHIELD 1500 Penetrating Concrete Sealer technology is based on inorganic compounds.
- **Non-Toxic/Non-Hazardous:** MOXIE SHIELD 1500 Penetrating Concrete Sealer is not toxic or hazardous; therefore, when protecting concrete from moisture intrusion it will not release toxic or hazardous emissions.
- **Water-Based:** The technology is a water-based carrier for inorganic ingredients.

STANDARDS COMPLIANCE

ASTM E96, E1745, F710, F2170–Sec 7.9, C156, C666, C805, D4263, D5084, C309 Performance criteria, CARB, EPA USDA VOC=0

USDA approved for use in food processing areas. Complies with OSHA 29 CFR-1910.1200.

COVERAGE RATE

- For two coat horizontal coverage estimate 150-200 ft² per gallon. For two coat vertical coverage estimate 100-125 ft² per gallon.
- If using as a curing compound, apply one coat at the rate of one gallon per 250-300 ft² after the final finish. For a moisture vapor barrier, alkali efflorescence, or pH oriented application apply a second application after the first coat has absorbed.

APPLICATION FOR NEW CONCRETE INSTALLATION

Moxie Shield 1500 Penetrating Concrete Sealer can be sprayed onto the surface of the fresh concrete as soon as the concrete surface is “set” enough to walk on without marring the finish.

1. Apply the first coat of Moxie Shield 1500 penetrating sealer using a lowpressure sprayer.
2. Apply the second coat as soon as first coat has absorbed. Typically, no more than 10 minutes.
3. No additional preparation is needed before or after the two-coat application.

APPLICATION PROCEDURES FOR EXISTING CONCRETE

1. DO NOT APPLY IF THE AMBIENT TEMPERATURE IS BELOW 50°F OR ABOVE 90°F ON EXISTING CONCRETE. IDEAL AMBIENT TEMPERATURE IN CONTROLLED ENVIRONMENTS IS 68°F-78°F.

DO NOT APPLY IN THE RAIN.

1. Mist surface to dampen the substrate.
2. Apply the first coat of MOXIE SHIELD 1500 Penetrating Concrete Sealer using a low pressure sprayer or by pouring and brooming evenly over the concrete substrate.
3. Do not leave any puddling in low areas of the concrete. Product must absorb evenly and be dry to the touch within 30 to 45 minutes of application. MOXIE SHIELD 1500 Penetrating Concrete Sealer will dry on the surface and become difficult to remove if allowed to cure in low areas. Spread product evenly, using a stiff bristle broom to ensure even absorption, and begin brooming low areas before moving to high areas.
4. Apply second coat when application surface area appears to be 90% dry (two or more applications may be necessary, depending on the porosity). Regulate the absorption of product on areas where it is absorbing slowly while touching up areas where absorption is occurring rapidly until the surface appears to be drying evenly.

NOTE: When absorption takes 30 minutes or longer, no further applications are necessary.

5. After the final application has absorbed and appears dry, mist surface with clean water. Proper and complete absorption will result in the appearance of an even, dry look.
6. After 16-24 hours, saturate thoroughly with water to allow further penetration of product and to neutralize the surface. Broom water from low spots to avoid any puddling during drying period. Broom off any efflorescence until no more appear. When dry and no efflorescence are present, sealing process is complete. If flooring is to be installed wait 48 hours after last saturation to install flooring materials or coatings. Refer to the testing procedures listed below and proceed with ASTM D4263 Plastic Sheet Test and ASTM E1907 Relative Humidity Test.

PACKAGING

MOXIE SHIELD 1500 Penetrating Concrete Sealer 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.

STORAGE

Store above 40°F in a tightly closed container. Do not allow product to freeze. Do not use compressed air, product may foam. Indefinite shelf life.

ADDITIONAL INFORMATION

For exterior applications, do not apply in rain, wind, or extreme conditions. Do not apply if the ambient/surface temperature is below 50°F or above 85°F on existing concrete. In controlled environments, the ideal ambient/surface temperature is 68°F-78°F. Do not apply to fresh concrete (less than 28 days) if a calcium chloride accelerator was used. Do not apply in windy conditions. Avoid contact with eyes. Due to the high 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. Remove with running water or a damp cloth immediately.

Product will leave a hard white residue, or permanently etch/erode glass and smooth surfaces.

MANUFACTURER'S GUARANTEE

MOXIE SHIELD 1500 Penetrating Concrete Sealer is guaranteed to perform and be manufactured per the specifications contained in the Moxie Engineering documentation.

RELATED DOCUMENTS

CSI Specification Sheet
Application Procedures
Technical Bulletins
Safety Data Sheet