



DURATITE® MLastic

TECHNICAL DATA SHEET

DuraTite® MLastic is a single-component, flexible cementitious waterproofing coating. Added to water, MLastic powder transforms into a high-quality coating system. DuraTite MLastic is designed to be applied over concrete and masonry. Once cured, MLastic becomes a watertight coating barrier with outstanding adhesion properties, that is permeable to vapor diffusion and offers excellent freeze-thaw durability. MLastic is flexible even at low temperatures, ensuring the waterproofing of treated surfaces year-round, and is compatible with cement-based adhesives and coatings for subsequent layers.

DuraTite MLastic was designed using advanced cross linking polymer technology, with high contents of EVA (Ethylene Vinyl Acetate). This use of this technology allows DuraTite MLastic to increase its performance over time (even when UV rays are present). It is an elastomeric polymer that produces materials that are "rubber-like" in softness and flexibility.

KEY BENEFITS

- Flexible
- Bonds to damp surfaces (no primer required)
- Suitable for immersion and underground applications
- Resistant to salts and carbonation
- Bond strength ensures superior adhesion.
- Superior abrasion resistance.
- May be overcoated

SYSTEM COMPATIBILITY

DuraTite MLastic is compatible with the following systems. While it is not required to use DuraTite MLastic with a system as it is a stand alone product, some systems may require the use of DuraTite MLastic for proper waterproofing and warranty recognition.

- TechCrete Waterproofing Systems
- CretePRO Waterproofing Systems
- BridgeDECK Waterproofing Systems

PRODUCT PROPERTIES

- Beige
- Low VOC Content
- Chemical Base
- Cement modified with modified polymers
- Pot life - 45 minutes (@ 73oF / 23oC)
- Density: 0.86 oz/in³ (1.5 g/cm³)
- pH 13

PERFORMANCE CHARACTERISTICS

- Application rate per pail: 53 sq. ft (5 m²)
- Cure time for immersion: 72h
- Re-coat time: 4 to 6 hours
- Positive pressure to 230 ft (70 m) head
- Negative pressure to 82 ft (25 m) head
- Horizontal and Vertical Performance
- Increases resistance of substrate to deicing salts

PROTECTION

Provide protection for newly installed coating against exposure to rain or other water for a minimum of 2 hours at 70°F (21°C) and 50% RH.

FLOOD TESTING

Allow membrane to cure fully before flood testing, typically 72 hours after final cure at 70°F (21°C) and 50% RH.

PRIMING

No priming is required for DuraTite MLastic. Surfaces must be pre-wet using a light water mist but should be free of surface water. This assists with the workability of the products and reduces rapid drying of product particularly over porous surfaces.



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APPLICATION

SURFACE PREPARATION

MLastic must be applied to a clean, dry, dust-free concrete surface. A minimum of 14 days for new concrete application. If the concrete is aged concrete and needs to be cleaned, then it is recommended to use one of the following products to clean and prepare the surface.

NOTE: All ACR cleaning products have been thoroughly tested to ensure that they will not contaminant or cause issues with the application of the waterproofing system. If cleaning is required then Alchemco ACR cleaning products should be used to ensure proper issuance of applicable warranty.

ACR Concrete Masonry Cleaner - Use to remove dirt and environmental debris. ACR Concrete Masonry Cleaner is sprayed on the surface and requires some agitation. Once the dirt and debris have been removed rinse with water.

ACR Concrete Masonry Etch - Used when the surface of the concrete does not allow the proper penetration of the water based products. ACR Etch is an environmentally and human safe substitute for muriatic acid. Apply by spraying over the entire surface. Once the product is no longer reacting with the concrete remove **Option 1.)** allow to dry in place and once dry remove loose material with a broom or vacuum; **Option 2.)** remove by rinsing with water. Coverage rate for ACR Etch will vary depending on the application, but when used as directed the coverage rate is approximately 400-500 square feet per gallon. This product should be used at full strength.

ACR Emulsifying Cleaner - Use to remove grease and oil that has penetrated into the concrete. ACR Emulsifying Cleaner breaks down oil and grease to be rinsed off the surface. Follow with ACR Concrete Masonry Cleaner and rinse with clean water. Coverage rate for ACR Emulsifying Cleaner will vary depending on the amount of oil and grease that needs to be removed, but when used as directed the coverage rate is approximately 200-300 square feet per gallon. This product should be used at full strength.

Mixing

Place clean, potable water into a clean pail. Use approximately 3 quarts of powder to 1 quart of water (3:1) or mix 1.05 gallons (4 L) to a 26 lbs (12 kg) pail. Mix with drill and paddle at a medium speed for 90 seconds.

Step 1. Add 2/3 of the required water to a clean pail.

Step 2. Slowly add the **MLASTIC** powder to the water while using an electric stirrer with a paddle attachment, and mix at medium speed (approx. 400 rpm) until the mixture smooth.

Step 3. Add the balance of the required water and continue to stir until a homogeneous product is formed.

Step 4. Allow **MLASTIC** to settle for a few minutes before lightly re-stirring. The product will then be ready to use.

Rules of Application

DuraTite MLastic should only be applied over properly prepared surfaces with high-quality brushes or rollers.

Apply DuraTite MLastic with a trowel in three layers on properly prepared substrates. With regards to the edges, the corners, and expansion joints to be waterproofed, both on floors and on walls, apply the nonwoven tape (rubber tape with felt), incorporating it into the product.

Apply the first product layer of about 1-2 mm on the surface to be waterproofed. If substrates have microcracks or are exposed to strong pressure (tanks, swimming pools, terraces, and balconies), apply the reinforcement mesh within the first coat of fresh DuraTite MLastic, incorporating it into the product and compacting with a trowel, avoiding creases.

Once the product has hardened, apply a second layer to the entire surface, forming a uniform coating of 2-3 mm. With suitable weather conditions and temperatures, wait at least 96 hours before applying the subsequent adhesive coating, or until DuraTite MLastic is completely hardened. When laying ceramic tiles on DuraTite MLastic it is recommended to use professional single-component cement-based adhesives.



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- Three coats are recommended for maximum performance.
- Apply thoroughly mixed coating generously with a loaded brush or roller.
- Always finish off with light strokes blending back into the coated area for a uniform appearance
- For application in direct sun or on a hot substrate, pre-wet surface and allow surface water to dissipate before applying.

For more information regarding temperature application, refer to ACI 305 & 306 or contact the Alchemco Technical Team technical@alchemco.com

Installation Finishes

Once DuraTite MLastic has dried to the touch, ceramic tile, stone brick may be installed using the thin-bed method with a Latex Thin-Set Mortar. Do not use solvent-based adhesives directly on DuraTite MLastic.

PACKAGING

The following product is available in the following sizes;

DuraTite MLastic

- 26lb (12Kg)



SHELF LIFE & STORAGE

Factory sealed containers of DuraTite MLastic are guaranteed to be of first quality for two (2) years if stored at temperatures >32°F (0°C) and <110°F (43°C). Store properly in the original packaging, in cool and dry conditions. Protect from water.

LIMITATIONS

- Do not apply when rain is expected.
- For applications where the coating will be subjected to immersion, a 3-day cure is recommended.
- Avoid contact with aluminum to prevent adverse chemical reactions and possible product failure.
- Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy.

WARNINGS



DANGER! TOXIC IF SWALLOWED

This product contains Sodium Silicate and may be harmful if swallowed. Wash hands, face and any exposed skin thoroughly after handling. Keep container tightly closed. Do not eat, drink or smoke when using this product.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER, doctor/physician. Rinse mouth.

See Safety Data Sheet for further details regarding safe use of this product. Safety Data Sheets for any Alchemco product may be obtained by contacting:

Alchemco, 3532 Mayland Court, Henrico, VA 23233. 800-610-2895 or emailing technical@alchemco.com or calling CHEMTREC 800-424-9300 (US) 703-741-5970 (International).



WARRANTY DISCLAIMER

Because of conditions of use which may be beyond our control, Alchemco shall not be held responsible in any manner for any personal injury or property loss resulting to the buyer or any other person from handling, storage, or use of this material not in accordance with directions. The buyer and/or user assumes all risk and liability resulting from improper handling or usage. There is no warranty expressed or implied of any kind, except as supplied in writing.

CONCRETE WATERPROOFING & MAINTENANCE PRODUCTS