

DuraTite® Repair Mortar is a quick-setting, single-component, ready-to-use repair mortar for vertical and overhead applications. DuraTite Repair Mortar consists of portland cement, specially treated quartz sand, and fiber reinforcements that reduce shrinkage and limit cracking. Chemicals within the DuraTite Repair Mortar react with water and by-products of cement hydration to cause a catalytic reaction, creating a crystalline complex integral to the concrete. The crystals grow in the presence of water and block the pores in the concrete and minor cracks, waterproofing the concrete. Once the solution is mixed, it may take several days for the pores to be completely blocked.



PRODUCT PROPERTIES

- Appearance – Gray powder with fiber additive
- Bulk density – 81 lbs/ft³
- Working time – 50 minutes
- Hardening time – 2 hours
- Hydrostatic head resistance – 460 ft. (140 m.)
- Compressive strength – 7251 psi (35 MPa) @ 28 days



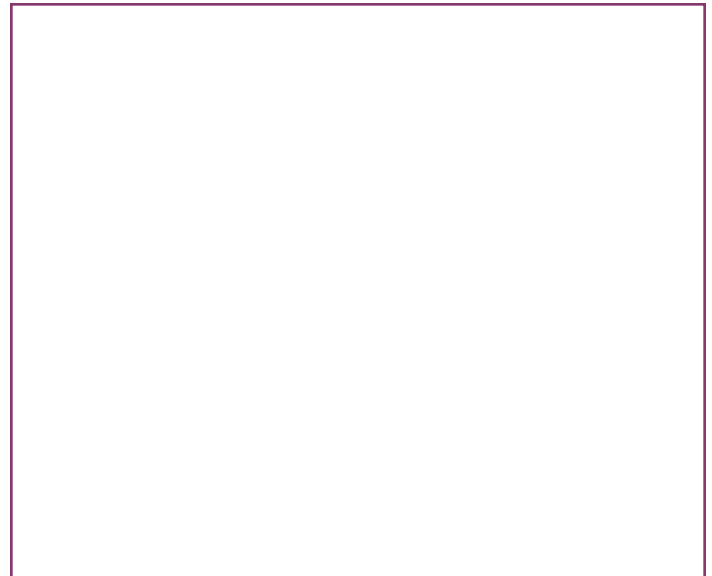
KEY BENEFITS

DuraTite Repair Mortar is a clean, non-shrink, crack resistant crystalline waterproofing mortar used to patch and repair concrete structures. DuraTite Repair Mortar can seal joints and make the concrete resistant to strong hydrostatic pressure. It is easy to use and only needs to be mixed with water.



PERFORMANCE TIMELINE

DuraTite Repair Mortar reacts with water and lime in the concrete to create a penetrating waterproofing crystalline barrier. The crystals fill the capillaries of the concrete and prevent moisture from passing while still allowing the concrete to breathe. DuraTite Repair Mortar's crystals will be fully developed and be functional after 7-10 days.



PERFORMANCE CHARACTERISTICS

- Applicable to positive or negative water pressure side of a structure
- Resists strong hydrostatic pressure
- Easy to apply. Only needs to be mixed with water
- Allows concrete to breathe
- Can be applied to moist concrete
- Fast setting
- Inorganic – contains no polymers
- Non-flammable
- Resists abrasion
- Freeze/thaw resistant
- No volatile organic compounds
- Protects reinforcing steel against corrosion.

COMPRESSIVE STRENGTH

1 day - 3,625 psi (25 MPa)
7 days - 5,802 psi (40 MPa)
28 days - 7,251 psi (50 MPa)

TENSILE STRENGTH

1 day - 508 psi (3.5 MPa)
7 days - 870 psi (46 MPa)
28 days - 1,305 psi (9 MPa)

APPLICATION

SURFACE CLEANING & PREP

DuraTite Repair Mortar must be applied to a clean, dry, dust-free concrete surface, at least 14 days after the placement of new concrete. If the concrete is older existing concrete and needs to be cleaned, then use any of the following products to clean and prepare the surface.

ACR Concrete Masonry Cleaner - Use this product to remove dirt and environmental debris. This product is sprayed on the surface and in most cases will require some agitation. Once the dirt and debris has been removed rinse with water. Coverage rate for this product will vary depending surface condition, 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 Concrete Masonry Etch - This product should be used when the surface of the concrete does not allow the proper penetration of the water based products. It is an environmentally and human safe substitute for muriatic acid. Apply by spraying over the entire surface of the masonry. Once the product is no longer reacting with the concrete, it may either be; 1) allowed to dry in place and once dry remove loose material with a broom or vacuum; 2) remove by rinsing with water. Coverage rate for this product 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 this product to remove grease and oil that has penetrated into the concrete. This is a solvent-based product that will break down the oil and grease and allow it to rise to the surface. Once used, clean with ACR Concrete Masonry Cleaner and rinse with clean water. Coverage rate for this product 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.

ACR Paint Remover - Use this product to remove paint from the surface of the concrete. This is an environmentally safe product; and will remove paint quickly and effectively. NOTE: Once used, clean with ACR Concrete Masonry Cleaner and rinse with clean water. If not properly removed this product will continue to work until removed. Coverage rate for this product will vary depending on the amount of paint 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.

Check the Alchemco website (www.alchemco.com) for technical data sheets on each of these products or for help.

NOTE: On some projects it may make more financial sense to utilize shot blasting or grinding to prepare the surface for the application of the system and related products, this is acceptable in lieu of chemical cleaning.

REPAIR MORTAR APPLICATION

- IMPORTANT NOTE:** DuraTite Repair Mortar works best when applied to a surface that is moist to a dull dampness but yet not fully wet.
- NOTE:** Products should only be applied when the ambient temperature is 40°F (+4°C) and rising or 100°F (+38°C) and falling.
- Prepare cracks or voids to be treated with DuraTite Repair Mortar by removing all loose material by either routing or grinding.
- Mix the DuraTite Repair Mortar powder with water. Add one (1) quart of water to every five and half (5.5) quarts of powder. The texture of the mix should be pliable enough to be trowelled in the cracks and voids with some pressure.
- Apply the mixture using a trowel for best results. Trowel mixture into void or crack and apply enough material to bring the area level with the surrounding area.



RATES OF APPLICATION

DuraTite Repair Mortar application rates will vary, but the following rates should be considered average.
All Surfaces 1.0 lb/yd² - 4.9 kg/m²



SHELF LIFE & STORAGE

DuraTite Mortar Repair should be stored in the same manner as cement in a cool dry place. In unopened and undamaged original packaging, this product has a shelf life of 2 years.

LIMITATIONS

DuraTite Repair Mortar is not recommended for use in expansion joint or other joints that are designed for movement or variable loading.

PACKAGING

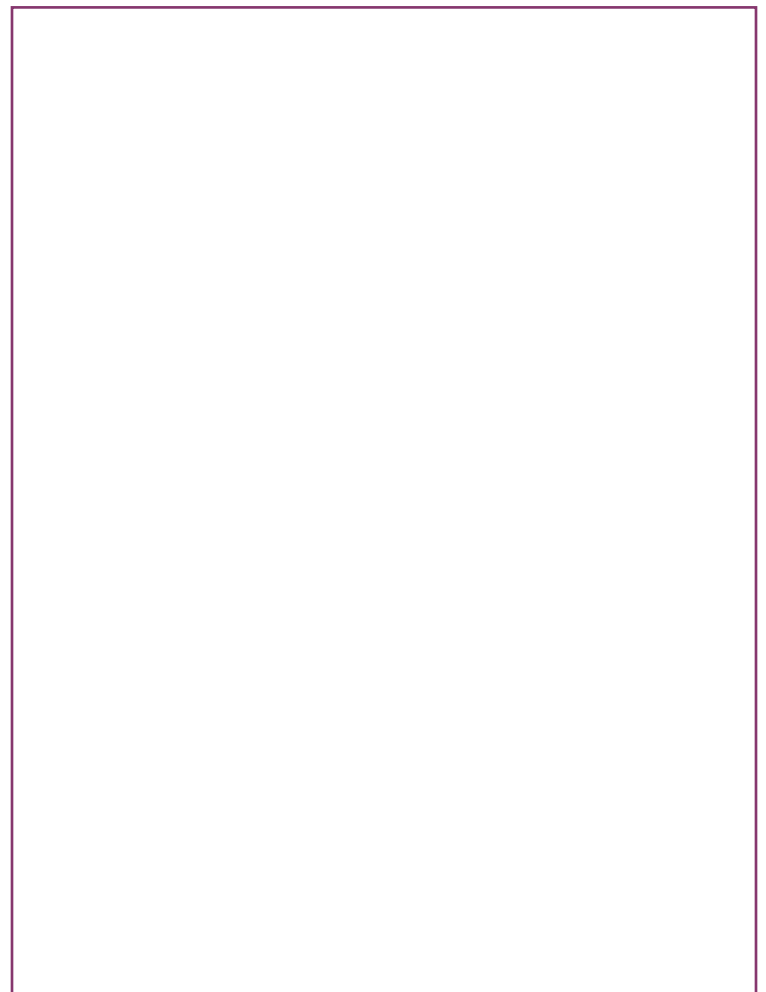
DuraTite Foundation is available in 55 lbs (25 kg) pails.



WARRANTY & SYSTEMS

DuraTite Foundation is available with a 5-Year Material Only warranty, but when used in conjunction with a TechCrete 2500 System it becomes part of the system warranty.

For additional information about the Alchemco system specifications or available warranties, either contact your local Alchemco distributor or Alchemco's Technical Department at technical@alchemco.com or call 800-610-2895.



WARNINGS



DANGER!

This product contains cement which is alkaline 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. Wear appropriate eye, skin and breathing protection when using this product. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

KEEP OUT OF REACH OF CHILDREN!

IF SWALLOWED: Immediately call a POISON CONTROL CENTER or 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

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