

Overview

DuraTite Foundation is a single-component, surface-applied, crystalline slurry for concrete and cement protection. When applied to the surface of concrete or mortar, insoluble crystals form and develop in the water bearing capillaries, effectively blocking the passage of water and ensuring permanent water tightness throughout the life of the structure.

HOW IT WORKS

DuraTite Foundation reacts with water and free 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 Foundation's crystals will be fully developed and functional after 7-10 days. Even after the crystals are fully developed, the chemicals that penetrated the concrete store themselves within the concrete and activate when they come in contact with water. If a crack forms after Watertite Foundation is applied, the crystals will continue to grow and protect the concrete from water damage. DuraTite Foundation can be used against negative and positive water or hydrostatic pressure and can be used on an internal or external surface. It is best practice to apply DuraTite Foundation to surfaces which face direct water contact to encourage accelerate penetration and crystallization of the chemicals.

KEY BENEFITS

- Becomes integral part of structure and provides long lasting waterproofing coverage.
- Protects concrete against corrosive substances in water.
- Crystalline technology will continue to react up contact with water and provide life-long protection.
- Can be used against negative and positive water pressure
- Non-toxic

TYPICAL APPLICATIONS

- Basement retaining walls
- Concrete slabs
- Tunnels and subway systems
- Construction joints
- Foundations
- Water retaining structures
- Underground vaults
- Sewage and water treatment plants
- Reservoirs
- Bridges, dams, and roads
- Marine structures
- Roof Tops and roof decks
- Channels
- Elevator pits and equipment pits

PRODUCT PROPERTIES

- Gray powder
- Non-toxic
- Working time – 50-60 minutes with continuous stirring
- Hardening time – Four Hours
- Density 112.37 lb/ft³ - 1.80 g/cm³

Performance Characteristics

- Permanently waterproofs concrete
- Lowers cost of waterproofing and labor
- Activates and reactivates in presence of moisture
- Penetrates below the surface of the concrete
- Protects reinforcing steel against corrosion

APPLICATION

How it works

When DuraTite Foundation is used, the concrete must be clean. Remove laitance, dirt, grease, etc. by water jetting, wet sandblasting, or wire brushing. Cracked or honeycombed concrete must be removed or filled in with DuraTite Plug. Surfaces must be pre-watered before DuraTite Foundation can be applied. Contact the Technical Department for help and directions for which cleaning product will provide the best result for a clean surface. Where segregation or voids are apparent, chip out and treat with DuraTite Foundation. Once repaired, allow at least 24 hours for patches to dry and cure. Ensure that pores are open and roughen surface so the crystals can penetrate effectively. Surface must be damp before being treated. DuraTite Foundation should be applied to a wet surface to ensure proper penetration. **Application should not be made when the surface temperature is below 41°F (5°C).**

Application Rates

- Vertical Surfaces 1.25-1.5 lb/yd² – .7-.8 kg/m²
- Horizontal Flatwork 2 lb/yd² – 1.1 kg/m²
- Construction Joints – 4.2 - 6.59 lb/yd² 1.6 kg/m² (2 kg/m²)

Application Method

DuraTite Foundation can be applied to any cement or concrete surface that is clean and wet. The mixture should be three quarts (liters) powder and one quart (liter) water (mix one part water and three parts powder). Then, continuously stir the solution. With a concrete brush, use an aggressive circular motion to coat the concrete with the solution at a coverage of .16 lb/ ft² (0.8 kg/m²) per coat. To ensure that there is even coverage, it is recommended to use two coats. Wait until the first coat is hard but still “green” before applying a second coat (around 3-4 hours.)

Waterproofing Concrete Slabs

When there is a high water table, DuraTite Foundation can be applied to binding concrete before casting the slab. It will prevent ingress of ground water from damaging the concrete. Any holes drilled to relieve water pressure should be sealed with Duratit Plug.

Existing Structures

Structures that are leaking should be inspected to find the leak. Any water should be cleared away. Clean tools and equipment after use. Plastic and rubber containers are recommended.

PERFORMANCE TIMELINE

The rate of penetration of crystalline development varies with the density and surface absorption of the concrete.

PACKAGING

DuraTite Foundation comes in 55 lbs. (25kg) pails.

DuraTite Foundation

LIMITATIONS

DuraTite Foundation is not an effective waterproofing system for joints that experience constant or repeated movement. Consult an Alchemco Representative for project specific recommendations before specifying DuraTite Foundation in elevated structures.

DuraTite Foundation will change the color of the surface it is applied to. Consult your Alchemco representative for advice regarding applications with specific aesthetic requirements.

SHELF LIFE & STORAGE

Store like cement, in dry, cool conditions. The shelf life is twenty-four months under these conditions.

WARRANTY

Alchemco, a company under MBC North America INC., warrants that Alchemco products are free from manufacturing defects and comply with the specifications given in their respective technical data-sheet. Because conditions of use, such as site conditions, surface preparations, workmanship, concrete ingredients, weather, structural issues and other factors that are beyond the control of Alchemco, no warranty can be given as to the results of use. Purchaser agrees to seek the advice of qualified professionals and to determine for themselves the suitability of the products for their intended purpose and assumes all risks. Purchaser's sole remedy is limited to replacement of any product proven defective or at Alchemco's option refund of the purchase price paid. THIS LIMITED WARRANTY CONTAINS THE ENTIRE OBLIGATION OF ALCHEMCO. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALCHEMCO SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. No representative of Alchemco has the authority to imply any representations or provision except as stated herein. Alchemco reserves the right to change the properties of its products without notice.

• 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



CHEMTREC (US): 1-800-424-9300

DANGER! TOXIC IF SWALLOWED

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. For further information please refer to Safety Data Sheet. **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. Alchemco, 3532 MAYLAND CT, Henrico, VA 23233 800-610-2895



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TECHNICAL DATA

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