MOISTURE VAPOR EMISSION CONTROL

Master Format #: 09 05 61.13

DURAL AQUATIGHT WB

MOISTURE MITIGATION TREATMENT SYSTEM

EUCLID CHEMICAL

PACKAGING

1.8 gal (6.82 L)

Code: 044MM 10

CLEAN UP

Tools and equipment should be cleaned with xylene or lacquer thinner. Consult Safety Data Sheet (SDS) for safety and health precautions.

SHELF LIFE

1 year in original, properly stored, unopened package.

COVERAGE

A 1.8 gallon unit mixed with 1.8 gallons of water, as instructed, will yield 3.6 gallons. **Coverage rate for the diluted material is 200 to 300 ft²/gallon**. It is critical that coverage rates are accurately followed to obtain maximum performance of the system.

Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

DESCRIPTION

DURAL AQUATIGHT WB is a low viscosity, water-emulsion, penetrating epoxy primer designed for use as a moisture mitigation treatment on concrete with excessive moisture vapor transmission or moisture content. DURAL AQUATIGHT WB will tolerate a moisture content up to 90% relative humidity as tested according to ASTM F2170 and moisture transmission rates (MVT) up to 10 pounds per 1,000 square feet per 24 hours as tested according to ASTM F1869.

PRODUCT CHARACTERISTICS

PRIMARY APPLICATIONS

- Industrial & Manufacturing
- Chemical Processing
- Food & Beverage Processing
- Warehouses

APPEARANCE

DURAL AQUATIGHT WB is a milky emulsion when mixed, and a clear amber color when dried

FEATURES/BENEFITS

- Reduces Moisture Vapor Transmission (MVT) rates
- Greatly reduces concrete outgassing
- Fast dry time
- Moisture tolerant up to 10 lbs. MVT and 90% R.H.
- Low-odor during application and cure
- Very low VOC
- Excellent Adhesion to properly prepared concrete

TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.
*Material properties @ 75 °F (24 °C)

Test Method	Test Property	Values
ASTM D7234	Bond Strength	> 400 psi (2.8 MPa)
ASTM D695	Dry Hard, light foot traffic	5 Hours
N/A	Dry to Touch	1.5 to 2 hours
N/A	Recoat Time at 75 °F (24 °C)	Minimum . . . . . 3 to 5 hours Maximum . . . . . 24 hours
N/A	Solids Content, diluted	38%
N/A	Viscosity (mixed) Brookfield Viscometer, Model RVT	50 cps
EPA Method 24	VOC	5 g/L
N/A	Weight per gal (mixed)	8.75
N/A	Working time	60 minutes

DIRECTIONS FOR USE

Surface Preparation: The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. New concrete must be at least 28 days old. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, by mechanical means, and then thoroughly cleaned of all dust and debris. The Concrete Surface Profile (CSP) should be equal to CSP-3 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI). Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM C1583. The tensile pull-off strength should be at least 200 psi (1.4 MPa). The prepared surface must be able to pass a water absorption test to confirm adequate porosity: Apply dime size water droplets randomly across floor surface, (at least one per 100 square feet) using an eye dropper. Water must completely absorb into concrete within 60 seconds. Areas that fail this test must be further prepared until passing the test. Then the surface must be tested for confirm that the relative humidity (RH) of the concrete is <90% as tested in accordance to ASTM F2170 or that the moisture transmission rates (MVT) are <10 pounds per 1,000 square feet per 24 hours as tested in accordance to ASTM F1869. Work must be performed by experienced contractors.

Non-Moving Cracks: Cracks less than 1/8" wide can be filled with DURAL AQUATIGHT WB. Cracks larger than 1/8" wide can be filled with an epoxy mortar made with EUCLID CHEMICAL DURAL AQUATIGHT 100 PLUS and fine sand. Once the non-moving cracks have been filled, and while it is still wet, broadcast sand to refusal. Allow to cure thoroughly and then remove all excess sand prior to proceeding with the application.

Moving Cracks, Saw Cut Joints: All moving joints and cracks must be honored up through the moisture mitigation system any underlayment and floor covering material. Saw cut joint sidewalls and the bottom of the joint should be coated with DURAL AQUATIGHT WB then allowed to cure for 12 to 24 hours. Then the saw cut joint should be filled with a joint filler recommended by Euclid Chemical.

Expansion Joints: The expansion joint sidewalls and bottom of the joint shall be coated with DURAL AQUATIGHT WB and allowed to cure 12 to 24 hours. Then a suitable backer rod should be placed in the joint and the cavity filled with a joint filler recommended by Euclid Chemical.

Mixing: The substrate and all materials must be maintained at 50 °F to 85 °F for 24 hours before, during and after installation. DURAL AQUATIGHT WB comes in a premeasured kit. Mix each component of DURAL AQUATIGHT WB prior to combining. Pour the Part B into a clean mixing container. Be sure to use a suitable size mixing container since the mixed volume of material will double. Then begin mixing the Part B while slowly adding the Part A. It is important that the Part A is added into the Part B, not the other way around! Mix thoroughly, for at least 3 minutes to obtain a uniform creamy emulsion mixture. A high speed drill using a high shear mixing paddle, such as a #P13 paddle as found in ICRI Guideline 320.5R-2014 is recommended for this procedure. Once this is complete, DURAL AQUATIGHT WB is then diluted with an equal amount of potable water to reduce the solids content. Slowly add this potable water while continuously mixing. Mix for another 3 minutes to ensure homogenous consistency.

Application: All moving joints and cracks must be honored up through the moisture mitigation system any underlayment and floor covering material. Saw cut joint sidewalls and the bottom of the joint should be coated with DURAL AQUATIGHT 100 PLUS then allowed to cure for 12 to 24 hours. Then the saw cut joint should be filled with a joint filler recommended by Euclid Chemical.

DURAL AQUATIGHT WB must be topcoated with Euclid decorative or industrial coatings within recoat times. Cure time for light foot traffic is 5 hours, recoat time is 3 to 24 hours at 75 °F and 50% RH. Allow for additional cure time in cooler temperatures and higher humidity.

PRECAUTIONS/LIMITATIONS

- Store DURAL AQUATIGHT WB indoors, protected from moisture, at temperatures between 50 °F (10 °C) and 90 °F (32 °C).
- Do not use DURAL AQUATIGHT WB over gypsum based underlayments.
- Do not use DURAL AQUATIGHT WB under cementitious overlayment topping products. Use DURAL AQUATIGHT 100 instead.
- Do not apply to slabs that have been treated with densifiers, shake-on hardeners or liquid hardeners.
- Post-cracking of the concrete, slab warping at joints, or cracks after installation of DURAL AQUATIGHT WB may cause a breach in the system and void any warranties.
- Substrate temperature must be a minimum of 50 °F.
- Before performing moisture level tests enclose and condition the work area for the length of time as required by ASTM F2170 and ASTM F1869.
- When a vapor barrier is utilized in on-grade applications, it must be installed directly under the slab.
- Concrete must be free of dirt, curing agents, fiber reinforcement, densifiers, ASR byproducts, standing water, and other foreign materials.
- DURAL AQUATIGHT WB must absorb completely into concrete pores, do not puddle or apply a thick resin-rich surface layer.
- For use on standard mix design concrete, special mix designs or high density mix designs must be reviewed with Euclid Chemical.
- Application of a test area is recommended to confirm final appearance of the system with the end user.
- In all cases, consult the product Safety Data Sheet before use.