**DURAL AQUATIGHT WB**

DURAL AQUATIGHT WB is a low viscosity, water-emulsion, penetrating epoxy designed for use as a moisture mitigation treatment on concrete with excessive moisture vapor transmission or moisture content. Subsequent to the application of the DURAL AQUATIGHT WB a Euclid Chemical epoxy and/or urethane flooring system is installed.

**Note to Specifier: DURAL AQUATIGHT WB is a moisture mitigation primer that is designed to be applied as a primer coat for Euclid epoxy and urethane floor and traffic deck coatings that are to be placed over concrete with relatively high moisture vapor transmission (MVT) rates. Specifications for this product will need to incorporate a Euclid epoxy and/or urethane floor and traffic deck coating, and proper joint sealants and fillers.**

***Step 1:*** *DURAL AQUATIGHT WB, moisture mitigation treatment is applied per manufacturer’s literature.*

***Step 2****: Application of the specified Euclid epoxy and/or urethane flooring system per manufacturer’s literature.*

***{Note to Specifier: The paragraphs below are meant to be incorporated into Parts 1, 2 and 3 of a standard CSI 3 Part Format specification, project’s General Structural Notes or directly onto the plans. They must be carefully reviewed by a qualified design professional and edited to meet the particular requirements of the project at hand, assure compliance with any governing building codes, and coordinate with other specification sections and drawings.}***

PART 1 GENERAL

*{Note to Specifier: Insert the following paragraph and sub paragraphs as required for your project. Euclid’s recommended products are shown in italics. More info can be found on these products at* [*www.euclidchemical.com*](http://www.euclidchemical.com) *or by clicking on the product links.}*

1.01 RELATED WORK:

A. Joint Fillers – [Eucolastic](http://euclidchemical.com/products/construction-products/joint-fillers-sealants/polyurethane-sealants/), [Tammsflex](http://euclidchemical.com/products/construction-products/joint-fillers-sealants/polysulfide-sealants/), [Dural 340](http://euclidchemical.com/products/construction-products/joint-fillers-sealants/epoxy-fillers-sealants/dural-340-nssl/), [Qwikjoint UVR](http://euclidchemical.com/products/construction-products/joint-fillers-sealants/polyurea-joint-fillers/euco-qwikjoint-uvr/)

B. Concrete Repair:

2. Horizontal: [Express Repair](http://euclidchemical.com/products/construction-products/repair/horizontal-repair/cementitious-mortars/express-repair/), [VersaSpeed 100](http://euclidchemical.com/products/construction-products/repair/horizontal-repair/cementitious-mortars/versaspeed-100/)

3. Form and Pour: [Eucocrete](http://euclidchemical.com/products/construction-products/repair/horizontal-repair/cementitious-mortars/eucocrete/)

C. Traffic Deck Coatings: [Tammsdeck](http://euclidchemical.com/products/construction-products/coatings/traffic-deck-coatings/urethane-based/tammsdeck-system/), [Flexdeck](http://euclidchemical.com/products/construction-products/coatings/traffic-deck-coatings/urethane-based/flexdeck-system/)

D. Decorative Floor Coatings: [Duraltex](http://euclidchemical.com/products/construction-products/coatings/decorative-floor-coatings/epoxy-based/duraltex/)

E. Epoxy Chemical Resistant Coatings: [Duralkote 240](http://euclidchemical.com/products/construction-products/coatings/industrial-coatings/epoxy-based/duralkote-240/), [Duralkote 500](http://euclidchemical.com/products/construction-products/coatings/industrial-coatings/epoxy-based/duralkote-500/), [Duraltex 1705/07](http://euclidchemical.com/products/construction-products/coatings/industrial-coatings/epoxy-based/duraltex-1705-1707/), [Duraltex 1805/07](http://euclidchemical.com/products/construction-products/coatings/industrial-coatings/epoxy-based/duraltex-1805-1807/)

1.02 QUALITY ASSURANCE

A. Obtain primary resinous flooring materials, including moisture mitigation systems, primers, base coats, seal coats and top coats etc. from one single resinous flooring manufacturer. Obtain secondary materials including aggregates, sheet flashings, joint sealants, and substrate repair materials of type and from source recommended by resinous flooring manufacturer.

B. The surface must be tested for moisture content in accordance with ASTM F2170 and/or ASTM F1869. Moisture levels shall be below 10 lbs per 1000 sq. ft. in 24 hours when tested in accordance with ASTM F1869 and less than 90% relative humidity when tested in accordance with ASTM F2170.

C. Resinous Flooring Mock-Up

1. Prior to commencing moisture mitigation treatment and resinous flooring application, prepare a minimum **<<insert size>>** full scale, reference mock-up of each type, **[and][color][and][ texture]** of resinous flooring surface for approval by Owner.Said reference mock-up shall be constructed in location designated by owner/architect, using the same moisture mitigation treatment, resinous flooring,equipment, tools, personnel and methods for installing all materials as will be used for the remaining work to be performed.

2. Once accepted by owner or owner’s representative, mock-up is to remain, and is to be protected from damage. It shall become the standard for acceptance of color and texture for resinous flooring applications.

3. When Engineer/Architect determines that mockup does not meet requirements, demolish and remove it from the site and cast another until the mockup is accepted.

1.03 PROJECT CONDITIONS

A. Environmental Limitations: Apply the moisture mitigation treatment within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply the moisture mitigation system to wet substrates. The substrate and all materials must be maintained at 55° to 85°F (13° to 29°C) for 24 hours before, during and after installation.

1. Coordinate flooring work with other trades to ensure adequate illumination, ventilation, and dust free environment during application and curing of the system.

B Enclose application area and condition to environmental conditions that will be present during normal building use for a minimum of 72 hrs. before any moisture testing is done and before the application of the moisture mitigation system.

C. Conditions for Concrete

*{Note to Specifier: : Moisture retaining cover cure of new concrete is to be removed after seven days to allow the concrete to air dry prior to flooring installation.}*

1. New concrete shall be in place a minimum 28 days before proceeding.

2. Any cementitious repair mortars must have a full 7-day cure prior to coating unless otherwise approved in writing by architect.

3. Examination:

a. Prior to commencement of the moisture mitigation treatment application examine substrates, with Applicator present, for compliance with requirements and for other conditions affecting performance of the moisture mitigation system.

b. For the record, prepare written report, endorsed by Applicator, listing conditions detrimental to performance.

c. Verify compatibility with and suitability of substrates.

d. Contractor must report, in writing, surfaces left in improper condition by other trades. Application of the moisture mitigation treatment system indicates acceptance of surfaces and conditions.

PART 2.0 PRODUCTS

2.01 MOISTURE MITIGATION TREATMENT SYSTEM

A. Moisture Mitigation Treatment System: (2) component, low viscosity, water-emulsion, penetrating epoxy designed for use as a moisture mitigation treatment on concrete with the following characteristics:

1. Mixed Viscosity, cps 50

2. Solids Content, % 38

3. Weight/gal, mixed 8.75

4. VOC, EPA Method 24 5 g/L

5. Bond Strength, psi, ASTM D7234 >400

6. Working Life, mins. 60

7. Dry to Touch, hrs. 1.5-2

8. Recoat, minimum, hrs 3-5

4. Product:

a. Euclid Chemical Company (The); Dural Aquatight WB, [www.euclidchemical.com](http://www.euclidchemical.com)

PART 3.0 EXECUTION

3.01 SURFACE PREPARATION

A. 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, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. The Concrete Surface Profile (CSP) shall be equal to a minimum CSP-3 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI).

*{Note to specifier: The strength of the prepared concrete surface can be tested. Insert the following sub paragraphs if quantitative results are required.}*

**1. [Following surface preparation the cleaned concrete floor shall be tested for compliance with the following:]**

**a. [Minimum surface tensile strength of 200 psi when tested with a “Elcometer” or similar pull tester per ASTM C 1583.]**

2. 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.

3. Begin moisture mitigation treatment system application only after minimum concrete curing and drying period recommended by the manufacturer has passed, and unsatisfactory conditions have been corrected.

B. Non-Moving Cracks: Cracks less than 1/8” wide shall be filled with Moisture Mitigation Resin. Cracks larger than 1/8” wide shall be filled as recommended by the Moisture Mitigation System manufacturer. 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.

C. Saw Cut Joints: Saw Cut Joint sidewalls and the bottom of the joint shall be coated with Moisture Mitigation Resin and then allowed to cure for 12 to 24 hours. Then the Saw Cut Joint should be filled with a joint filler recommended by Moisture Mitigation System Manufacturer.

D. Moving Cracks and Expansion/Isolation Joints: All moving cracks and expansion/isolation joints must be honored up through system. The Expansion Joint sidewalls and bottom of the joint shall be coated with Moisture Mitigation System Resin and allowed to cure 12 to 24 hours. Seal joint with Moisture Mitigation System manufacturer’s recommended backer rod and joint sealant.

3.02 MOISTURE MITIGATION TREATMENT SYSTEM APPLICATION:

A. Moisture Mitigation Treatment System Application

# 1. Mechanical Mixing- The moisture mitigation treatment system coating shall be thoroughly mixed utilizing a mechanical drill with a manufacturer approved mixing blade. Premix individual components separately per manufacturer’s recommendations then combine materials and mix per manufacturers recommendations. Bottom and sides of container may be scraped during mixing but shall not be scraped once mixing has ceased.

2. Application: Apply at an approximate rate of 200 to 300 ft² per mixed gallon (4.9 to 7.4 m2 per mixed liter). Using a flat squeegee, spread material at the recommended rate. Pull the squeegee slowly with a puddle in front of the squeegee. Allow for sufficient wetting of the slab and back-roll with a 1/4” nap roller. Very porous concrete may require additional material.

3. Apply subsequent finish floor coating systems within the recoat minimum and maximum times of the moisture mitigation treatment system.

*{Note to Specifier: Please remember to specify Euclid Chemical epoxy and/or urethane coating systems that are to be applied over our moisture mitigation treatment system.*

3.03 CURING AND PROTECTING

A. Prevent contamination and damage during application and curing stages.

B. Protect resinous flooring from damage and wear during remainder of construction period.

END SECTION