**TAMMSDECK SYSTEM**

Elastomeric, urethane, waterproofing deck coating for pedestrian and light vehicular traffic. The system consists of a two-part epoxy primer (DURAL EPOXY PRIMER), a single-component aromatic urethane membrane (TAMMSDECK MEMBRANE), and a single-component, sand filled, aliphatic urethane topcoat (TAMMSDECK TOPCOAT).

***{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}***

1. Related Work:

A. Joint Fillers – *EUCOLASTIC*

B. Concrete Repair:

1. Vertical and Overhead: *EUCO V-100, TAMMS STRUCTURAL MORTAR*

2. Horizontal: *EXPRESS REPAIR, VERSASPEED*

3. Form and Pour, *EUCOCRETE*

C. Crack Repair/Injection: *DURAL 452, DURAL FAST SET EPOXY*

D. Architectural Coatings: *TAMMSCOAT*

E. Penetrating Sealers: *BARACADE WB 244, BARACADE 100C*

F. Bonding Agents: *DURALPREP A.C., DURAL 452 MV*

G. Cathodic Protection: *SENTINEL GALVANIC ANODES*

H. Cementitious Waterproofing: *TAMOSEAL, VANDEX*

1.­\_\_­ QUALITY ASSURANCE

A. Obtain primary Urethane Deck Coating System materials, including primers, base coats, seal coats and top coats etc… from one single Urethane Deck Coating System manufacturer. Obtain secondary materials including aggregates, sheet flashings, joint sealants, and substrate repair materials of type and from source recommended by Urethane Deck Coating System manufacturer.

1. Urethane Deck Coating System manufacturer shall have ISO 9001 Quality Certification.

B. Urethane Deck Coating System Mock-Up:

1. Prior to commencing Urethane Deck Coating System application, prepare a minimum **<<insert size>>** full scale, reference mock-up of each type, **[and][color][and][ texture]** of Urethane Deck Coating System surface for approval by Owner.Said reference mock-up shall be constructed in location designated by owner/architect, using the same 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 Urethane Deck Coating System applications.

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

1.\_\_ PROJECT CONDITIONS

A. Environmental Limitations: Apply Urethane Deck Coating System within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply Urethane Deck Coating System to damp or wet substrates. Apply when temperatures are between 50 deg F and 90 deg F (10 deg C and 32 deg C). Do not apply when relative humidity exceeds 85 percent, or when temperatures are less than 5 deg F (-15 deg C) above dew point.

1. Use a surface thermometer to monitor, as necessary, the temperature of substrates to be patched and waterproofed.

2. Do not apply material if the substrate is damp, wet or frozen or if freezing conditions are imminent.

3. Coordinate Urethane Deck Coating System work with other trades to ensure adequate illumination, ventilation, and dust free environment during application and curing of Urethane Deck Coating System.

B. Conditions for Concrete

***{Note to Specifier: Moisture retaining cover cure is to be removed after seven days to allow the concrete to air dry prior to Urethane Deck Coating System 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:

1. Prior to commencement of Urethane Deck Coating System application examine substrates, with Applicator present, for compliance with requirements and for other conditions affecting performance of Urethane Deck Coating System.
2. For the record, prepare written report, endorsed by Applicator, listing conditions detrimental to performance.
3. Verify compatibility with and suitability of substrates.
4. Contractor must report, in writing, surfaces left in improper condition by other trades. Application of coating indicates acceptance of surfaces and conditions.

PART 2.0 PRODUCT

2.\_\_ URETHANE DECK COATING SYSTEM

A. Epoxy Primer: Provide 100% solids, two-component, penetrating epoxy primer manufactured by Urethane Deck Coating System manufacturer.

 1. Mixed Viscosity of 300 to 400 cps

 2. Tack Free Time of 3 to 4 hours @ 75 deg F.

 3. Cure Time of 12 hours @ 75 deg F

 4. VOC: <5 g/L

5. Product:

 a. Euclid Chemical Company (The); DURAL EPOXY PRIMER www.

B. Urethane Deck Coating System Membrane: (1) component, elastomeric urethane manufactured by Urethane Deck Coating System manufacturer.

1. Mixed Viscosity of 3,000 to 6,000 cps

2. Tensile Strength 1,200 psi per ASTM D 412

3. Tensile Elongation: 600% per ASTM D 412

4. Tear Resistance: 80 pli per ASTM D 1004

5. Product:

1. Euclid Chemical Company (The); TAMMSDECK MEMBRANE [www.euclidchemical.com](http://www.euclidchemical.com)

C. Urethane Deck Coating System Top Coat: (1) component, aliphatic urethane manufactured by Urethane Deck Coating System manufacturer.

1. Mixed Viscosity of 1,500 to 3,000 cps

2. Tensile Strength 2,500 psi per ASTM D 412

3. Tensile Elongation: 100% per ASTM D 412

4. Tear Resistance: 200 pli per ASTM D 1004

5. Abrasion Resistance: 0.010 loss CS 17 wheel, 1000 g.

6. Product:

1. Euclid Chemical Company (The); TAMMSDECK TOPCOAT [www.euclidchemical.com](http://www.euclidchemical.com)
2. Color: **<<Light Gray>><<Tan>>**

C. Broadcast Aggregates to be used in Urethane Deck Coating System shall be prepackaged factory graded, oven dried, 20/30 mesh silica sand.

PART 3.0 EXECUTION

3.\_\_ EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements and for other conditions affecting performance of urethane deck coatings.

1. Verify compatibility with and suitability of substrates.

2. Begin coating application only after minimum concrete curing and drying period recommended by urethane deck coating manufacturer has passed, after unsatisfactory conditions have been corrected, and after surfaces are dry.

3. After surface preparation, and just prior to the application, of the urethane deck coating system, verify that the substrate is visibly dry and free of moisture.

a. Test for moisture vapor transmission by plastic sheet method according to ASTM D 4263, modified to two hours. Do not apply coating if presence of moisture is indicated.

4. Application of coating indicates acceptance of surfaces and conditions.

3.\_\_ PATCHING, CRACK REPAIRS AND DETAILS

A. Prior to the application of urethane deck coating repair concrete as called for in specification Section **<<insert section number>>.**

B. Prepare, treat, rout, and fill cracks in substrates according to ASTM C 1127 and manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.

1. All cracks less than 1/16” in width shall be treated with a preparatory coat of Waterproof Membrane per manufacturer’s written recommendations and ASTM C 1127.

2. All cracks greater than 1/16” in width shall be routed and sealed, per ASTM C 1127, with flexible urethane joint sealant recommended by Urethane Deck Coating System Manufacturer.

3. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

3.\_\_ SURFACE PREPARATION

A. Clean and mechanically prepare substrates according to ASTM C 1127 and according to manufacturer’s written recommendations to produce clean, sound, dust-free, dry, absorptive substrate free of grease, oils, curing compounds, surface laitance, soil and other contaminants which may interfere with bond of Urethane Deck Coating System. Remove all concrete fins, ridges, and other projections. Surface profile shall be equal to CSP 3 to 4 in accordance with ICRI Guideline 310.2.

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

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

1. **[Minimum surface tensile strength of 250 psi when tested with a “Elcometer” or similar pull tester per ASTM C 1583.]**

2. Begin Urethane Deck Coating System application only after minimum concrete curing and drying period recommended by Urethane Deck Coating System manufacturer has passed, after unsatisfactory conditions have been corrected, and after surfaces are dry

***{Note to Specifier: To ensure the monolithic nature of the waterproof traffic deck coating, attention to curb/floor junctions, drains, expansion joints, etc. is of critical importance. See appropriate details for handling these critical areas.}***

B. Prepare vertical and horizontal surfaces at terminations and penetrations through Urethane Deck Coating System and at expansion joints, drains, and sleeves according to manufacturer’s written recommendations

C. Mask adjoining surfaces not receiving Urethane Deck Coating System, drains, and other substrate penetrations to prevent spillage, leaking, and migration of coatings.

3.\_\_\_ URETHANE DECK COATING SYSTEM APPLICATION:

A. Mechanical Mixing- Coating and primers shall be thoroughly 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. Do not aerate material.

B. Epoxy Primer Application: Apply uniform application of specified epoxy primer to properly prepared surface utilizing short nap roller, brush, or airless spray. Apply at manufacturer’s recommended coverage rate of 200 to 250 square feet per gallon. Do not allow primer to puddle.

C. Urethane Deck Coating System Membrane Application: When epoxy primer is tack free, but no more than 24 hours (at 75ºF) after application of epoxy primer, apply uniform application of

properly mixed Urethane Deck Coating System base coat to surface utilizing a notched trowel, a magic trowel, or a short nap roller. Apply at a rate of 60 to 70 square feet per gallon per manufacturer’s written recommendations. A spike roller shall be utilized to remove entrapped air prior to initial set of the Urethane Deck Coating System Base Coat.

D. Urethane Deck Coating System Top Coat Application: When Membrane Coat is tack free but no longer than 24 hours after application apply uniform application of properly mixed Urethane Deck Coating System Top Coat utilizing a short nap roller, brush, or spray. Apply at manufacturer’s recommended coverage rate of 90 to 100 square feet per gallon.

1. While material is still wet broadcast specified aggregate into Top Coat at rate of 0.25 lbs to 0.75 lbs. per square foot. Rate shall be such that aggregate on surface appears dry after application. Allow Top Coat to cure. Sweep or vacuum excess aggregate.

E. Urethane Deck Coating System Top Coat Second Application: When Top Coat is tack free but no longer than 24 hours after application apply second uniform application of properly mixed Urethane Deck Coating System Top Coat utilizing a short nap roller, brush, or spray. Apply at manufacturer’s recommended coverage rate of 150 to 250 square feet per gallon.

***{Note to Specifier: Depending on the specific project, correct implementation of other application details, such as terminations, drain detail, etc. may be required. For further information contact Euclid Chemical Technical Support at (800) 321-7628.}***

3.\_\_ CURING AND PROTECTING

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

B. Protect Urethane Deck Coating System from damage, wear and contamination during remainder of construction period.

END SECTION