



TECHNICAL DATA SHEET

FLEXDECK SYSTEM

Waterproofing, Heavy Duty Traffic Membrane System

TAMMS INDUSTRIES
TRAFFIC COATINGS 07180
THERMAL MOISTURE PROTECTION
(Replaces 1/00)

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MARCH 2002 (Replaces 1/00)

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- DESCRIPTION:** FLEXDECK is a lightweight, multi-layer, liquid applied, urethane/epoxy system for protecting surfaces subject to vehicle traffic wear. It is a flexible, waterproof, and rugged system designed for concrete, steel, and wood surfaces. It has high strength, high elasticity, high wear and abrasion resistance, and resistance to thermal and mechanical movement. Aggregate is embedded into the FLEXDECK WEAR COAT during application to produce the textured, nonskid, wearing surface. Color is produced in the FLEXDECK TIE COAT. The FLEXDECK System provides excellent resistance to most solvents, oils, gasoline, detergents, salts, and animal refuse. The FLEXDECK System consists of FLEXDECK PRIMER, FLEXDECK MEMBRANE, FLEXDECK WEAR COAT, and FLEXDECK TIE COAT. Each component may be applied by brush, roller, or spray.
- USES:** FLEXDECK is used exterior or interior above or below grade, to protect concrete parking decks and ramps, pedestrian walkways and ramps, marine decks, and steel or wood marine docks.
- COMPOSITION AND MATERIALS:** FLEXDECK PRIMER is a two component epoxy resin compound. FLEXDECK MEMBRANE is a two component, 100 percent solids, elastomeric polyurethane compound. FLEXDECK WEAR COAT is a two component epoxy resin compound. FLEXDECK TIE COAT is a gray pigmented two component epoxy resin compound.

- SURFACE PREPARATION:** Concrete must be structurally sound, dry, free of grease, oils, coatings, dust, curing compounds and other contaminants. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting or shotblasting. Remove oil, grease smear and asphalt residue with trisodium phosphate or a strong detergent. For oil contaminated surfaces use steam cleaning in conjunction with a strong emulsifying detergent. Rinse thoroughly with potable water. After cleaning, remove defective concrete, honeycombs, cavities, joint cracks, voids and other defects by routing to sound material. Smooth precast and formed concrete surfaces must be cleaned, roughened and made absorptive by abrasive blasting or shotblasting. If it is not possible to sandblast or shotblast, acid etch with a 15% Hydrochloric acid solution. After etching, pressure wash or flush the surface with copious amounts of water to neutralize the surface. Care must be taken to ensure that all salts and residue from the reaction have been removed. The pH of the surface should be checked, as per ASTM D4262, following acid etching. Following surface preparation, the cleaned surface should pull concrete when tested with an Elcometer or similar pull tester (ASTM D4541). Before application of the coating, use the "Visqueen test" (ASTM D4263) to evaluate moisture level in concrete.

New Concrete: Allow to cure for a minimum of 28 days. (Consult TAMMS Technical Service if earlier times are required). Remove any surface hardener or curing compounds, by using the recommended mechanical methods for surface preparation. Prepare surface as recommended above.

Old Concrete: For quick, small patching use suitable epoxy mortar. For larger areas, use cementitious patching materials which are compatible with the system. After patching, a light brush blast is recommended prior to coating. (Consult TAMMS Technical Service for appropriate patching materials).

Steel: All oils, greases, dirt, old coatings or chemical contaminants must be removed. All welds should be continuous and ground to remove all splatter, sharp edges, laps and other surface irregularities. All steel surfaces should be blasted to a "NEAR WHITE" metal finish using clean dry blasting media.

- CRACK REPAIR:** Repair moving or working cracks 1/32 to 1/16 inch by applying a 6 inch wide (150 mm) coating of FLEXDECK PRIMER, and then overcoat with FLEXDECK MEMBRANE embedded with fiberglass cloth. Apply repair materials in same manner shown below. For cracks wider than 1/16 inch, contact Tamms Technical Service Centers.

Material Properties 75°F & 50% Relative Humidity

FLEXDECK Membrane	
Pot Life	20-30 minutes
Initial Cure	2 1/2 hours
Temperature Range	-45 to +266°F
ASTM D412, 7 day, min.	
Tensile Strength	1200 psi
Tensile Elongation	400-500 percent
Tear Strength, ASTM D1004, min.	100-120 psi
ASTM D968, Falling sand method	
Abrasion Resistance	40 L/mil
Shrinkage	None
FLEXDECK Wear Coat/Tie Coat	
Pot Life	20 minutes
Initial Cure	4 hours
ASTM D638, 7 day, min.	
Tensile Strength	2000 psi
Tensile Elongation	30 percent
Shrinkage	None

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6. **MIXING INSTRUCTIONS:** Use clean containers and clean mixers for mixing the FLEXDECK PRIMER, MEMBRANE, WEAR COAT and TIE COAT. Mix each separately at the appropriate application time. Using a low speed "Jiffy" type mixer, mix the A & B components separately for approximately 1 minute. Then mix the components together thoroughly for 3-5 minutes. Scrape the bottom and sides of the mixing container at least once. Do not aerate the mix. **FLEXDECK PRIMER, WEAR COAT, TIE COAT:** Combine one part by volume Part "A" with one part by volume Part "B." **MEMBRANE:** The FLEXDECK MEMBRANE is packaged in a pre-proportioned kit. Pour the entire contents of the Part "B" into the container of Part "A" and mix thoroughly. Mix only enough material that can be used within the working life of each product.

7. **APPLICATION TECHNIQUES: FLEXDECK PRIMER:** The ambient and surface temperature should be between 50-90°F. Prime prepared areas by brush, roller, or airless spray. Allow FLEXDECK PRIMER to cure 3 to 4 hours at 75°F (24°C) to become tack free to the touch. Cool temperatures will lengthen drying time, and direct sunlight or high temperatures will shorten drying time.

FLEXDECK MEMBRANE: Ambient and surface conditions should ideally be between 60-80°F with relative humidity below 75%. If more than 24 hours has elapsed, or if the primer cures hard, apply a fresh coat of primer. FLEXDECK MEMBRANE is applied using a short nap roller, serrated squeegee, or brush. Use of a spiked roller to remove entrapped air before FLEXDECK MEMBRANE begins initial set is strongly recommended.

FLEXDECK WEAR COAT: As soon as the FLEXDECK MEMBRANE has set and is able to withstand foot traffic, but no longer than 24 hours, apply FLEXDECK WEAR COAT by brush, roller, or spray. Immediately after the FLEXDECK WEAR COAT is applied, broadcast aggregate into the coating. When the FLEXDECK WEAR COAT has set, sweep off the excess aggregate. If required, immediately apply another layer of FLEXDECK WEAR COAT and aggregate as above.

FLEXDECK TIE COAT: When the FLEXDECK WEAR COAT has properly cured, apply pigmented FLEXDECK TIE COAT by brush, roller, or spray.

8. **COVERAGE:**

Parking Stalls/Light Traffic Areas:

FLEXDECK Primer 150-200 sq. ft./gal.
 FLEXDECK Membrane 40-50 sq. ft./gal.
 FLEXDECK Tie Coat* 100-150 sq. ft./gal.

*Broadcast and backroll silica aggregate in Tie Coat for non-slip finish.

Driving Lanes/Medium Traffic Areas:

FLEXDECK Primer 150-200 sq. ft./gal.
 FLEXDECK Membrane 40-50 sq. ft./gal.
 FLEXDECK Wear Coat** 60-80 sq. ft./gal.
 FLEXDECK Tie Coat 80-100 sq. ft./gal.

Very Heavy Duty Application:

FLEXDECK Primer 150-200 sq. ft./gal.
 FLEXDECK Membrane 40-50 sq. ft./gal.
 FLEXDECK Wear Coat** 60-80 sq. ft./gal.
 FLEXDECK Wear Coat** 40-60 sq. ft./gal.
 FLEXDECK Tie Coat 80-100 sq. ft./gal.

**Use #9 Basalt Trap Rock in FLEXDECK Wear Coat applications for the best wear resistance.

Coverage rates are approximate, and for estimating purposes only. Coverage rates can vary due to surface texture, porosity, aggregate selected for anti-slip surface and temperature.

9. **CLEAN-UP INSTRUCTIONS:** Clean tools and application equipment immediately after use with xylene or Aromatic 100. Clean spills or drips while still wet with solvent. Dried FLEXDECK will require mechanical abrasion for removal.

10. **PACKAGING:** FLEXDECK PRIMER, FLEXDECK WEAR COAT, and FLEXDECK TIE COAT are available in 4 gallon cases. FLEXDECK MEMBRANE is available in 5 and 1-3/4 gallon pre-proportioned units. **Storage:** 50-90°F; protect from moisture and freezing. **Shelf Life:** Two years for FLEXDECK PRIMER, FLEXDECK WEAR COAT, and FLEXDECK TIE COAT; six months for FLEXDECK MEMBRANE in original container and properly stored.

11. **CAUTIONS:** Do not aerate FLEXDECK System components during mixing. Do not mix or apply FLEXDECK System components unless air or surface temperature are at least 50°F and rising. Each application of FLEXDECK System components must begin within 24 hours of the preceding application.

12. **ENVIRONMENTAL AND SAFETY PRECAUTIONS: Industrial Use Only.** Keep away from heat, sparks, and open flame. Use with adequate ventilation. **KEEP AWAY FROM CHILDREN AND ANIMALS.** Consult Material Safety Data Sheet for complete product safety information. **EMERGENCY RESPONSE:** 1-800-424-9300 (CHEMTREC), 1-800-862-2667 (TAMMS)

13. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES
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 800-862-2667 FAX: 815-522-3257
 www.tamms.com

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