# TAMMSDECK SYSTEM

**Elastomeric, Urethane, Waterproofing Deck Coating**

## Description

**TAMMSDECK SYSTEM** is an elastomeric 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).

## Primary Applications

- Balconies
- Mechanical rooms
- Plazas
- Parking garages
- Stadiums
- Floors
- Stairs
- Landings

## Features/Benefits

- Lightweight, anti-skid surface – ideal for deck resurfacing
- Impervious to water
- One-component membrane and topcoat
- Easy application
- Superior durability
- Abrasion resistance
- Strong bond to concrete
- Flexible over wide temperature range
- Outstanding weathering characteristics

## Technical Information

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

<table>
<thead>
<tr>
<th></th>
<th>Dural Epoxy Primer</th>
<th>Tammsdeck Membrane</th>
<th>Tammsdeck Topcoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixing Ratio</td>
<td>1:1</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Mixed Viscosity,</td>
<td>300 to 400</td>
<td>3,000 to 6,000</td>
<td>1,500 to 3,000</td>
</tr>
<tr>
<td>(cps)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pot Life, (2 gal/7.6 L), min.</td>
<td>20 to 30</td>
<td>60 to 120</td>
<td>60 to 120</td>
</tr>
<tr>
<td>Solids, % by wt.</td>
<td>100</td>
<td>86</td>
<td>78</td>
</tr>
<tr>
<td>VOC Content (g/L)</td>
<td>≤ 100</td>
<td>193</td>
<td>240</td>
</tr>
<tr>
<td>Tack Free Time, hrs.</td>
<td>3 to 4</td>
<td>10 to 12</td>
<td>18</td>
</tr>
<tr>
<td>Tensile Strength, psi (MPa) (ASTM D412)</td>
<td>NA</td>
<td>1,200 (8.3)</td>
<td>2,500 (17.2)</td>
</tr>
<tr>
<td>Tensile Elongation, % (ASTM D412)</td>
<td>NA</td>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td>Tear Resistance, pli (ASTM D1004)</td>
<td>NA</td>
<td>80</td>
<td>&gt;200</td>
</tr>
<tr>
<td>Abrasion Resistance CS 17 Wheel, 1000 g</td>
<td>NA</td>
<td>NA</td>
<td>0.010</td>
</tr>
</tbody>
</table>

**Appearance:** TAMMSDECK SYSTEM color is determined by the color of TAMMSDECK TOPCOAT. The standard colors are a light gray and tan. Special colors are available with minimum quantity orders and special pricing. TAMMSDECK MEMBRANE is available only in light gray, while DURAL EPOXY PRIMER is clear.

## Packaging

DURAL EPOXY PRIMER is available in 4 gal (3.8 L) and 10 gal (37.8L) units. TAMMSDECK MEMBRANE and TAMMSDECK TOPCOAT are available in 5 gal (18.9 L) pails.

## Shelf Life

- In original, unopened, properly stored containers; DURAL EPOXY PRIMER: 2 years.
- TAMMSDECK MEMBRANE: 6 months. TAMMSDECK TOPCOAT: 6 months.
**Directions for Use**

**Surface Preparation:** The surface must be structurally sound, clean, dry, absorptive, and free of grease, oil, curing compounds, soil, dust and other contaminants. See note in “Precautions/Limitations” section if coating is to be placed over old/existing epoxy or urethane coatings. New concrete and masonry 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. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. The Concrete Surface Profile (CSP) should be equal to CSP 3-4 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI). Allow substrate to dry before coating application. 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, and the tensile pull-off strength should be at least 250 psi (1.7 MPa).

Do not apply epoxy or urethane coatings if there is excessive moisture in the concrete or if the moisture vapor emission rate (MVER) is high. Before application of the coating, perform the “Visqueen test” (ASTM D4263, modified to 2 hours). Do not apply coatings when test indicates presence of moisture. After surface preparation, a test section application of the coating system is recommended to confirm good adhesion and compatibility of the coating with the surface, and also to confirm appearance and aesthetics.

When coating steel, all contamination should be removed and the steel surface prepared to a “near white” finish (SSPC SP10) using clean, dry blasting media.

**Mixing:** Mix DURAL EPOXY PRIMER using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 2 to 3 minutes each. Combine Part A and Part B in a 1 to 1 ratio by volume, then mix thoroughly for 3 to 5 minutes. Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

TAMMSDECK MEMBRANE is a one-component product. Prior to application, mix TAMMSDECK MEMBRANE for 3 to 5 minutes using a low-speed drill and a mixing paddle.

TAMMSDECK TOPCOAT is also a one-component product. Prior to application, mix TAMMSDECK TOPCOAT for 3 to 5 minutes using a low-speed drill and a mixing paddle.

**Application:** First, apply DURAL EPOXY PRIMER to the prepared surface using a short nap roller, brush, or airless spray. Next, apply TAMMSDECK MEMBRANE to the surface using a magic trowel, notched squeegee, or short nap roller. TAMMSDECK MEMBRANE application can take place as soon as the primer becomes tack free, but no longer than 24 hours after application of the primer. Lastly, apply TAMMSDECK TOPCOAT to the surface using a short nap roller, brush, or spray. TAMMSDECK TOPCOAT application can take place as soon as the TAMMSDECK MEMBRANE becomes tack free, but no longer than 36 hours after the membrane becomes tack free. Immediately after applying the topcoat, broadcast clean, dry, 20 to 30 mesh silica sand into the wet topcoat. After broadcasting, back roll the topcoat to evenly distribute and completely encapsulate the sand. Where a second topcoat is desired, do not back roll the initial application of TAMMSDECK TOPCOAT and broadcasted aggregate. Allow initial application of topcoat to cure, sweep off excess aggregate, and apply the second coat of TAMMSDECK TOPCOAT.

**Coverage/Yield**

<table>
<thead>
<tr>
<th>Product</th>
<th>ft²/gal (m²/L)</th>
<th>A dry film thickness (DFT) of 20 mils of TAMMSDECK MEMBRANE is recommended for most applications. TAMMSDECK MEMBRANE at a coverage rate of 65 ft²/gal (1.6 m²/L) yields 20 mils DFT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dural Epoxy Primer</td>
<td>200 to 250</td>
<td>(4.9 to 6.1)</td>
</tr>
<tr>
<td>Tammsdeck Membrane</td>
<td>60 to 70</td>
<td>(1.5 to 1.7)</td>
</tr>
<tr>
<td>Tammsdeck Topcoat</td>
<td>90 to 100</td>
<td>(2.2 to 2.5)</td>
</tr>
<tr>
<td>Broadcast Aggregate</td>
<td>0.25 to 0.75</td>
<td>lbs/ ft² (1.22 to 3.66 kg/m²)</td>
</tr>
<tr>
<td>Tammsdeck Topcoat (Optional)</td>
<td>150 to 250</td>
<td>(3.7 to 6.1)</td>
</tr>
</tbody>
</table>

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

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**Clean-Up**

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened TAMMSDECK SYSTEM components will require mechanical abrasion for removal.
Precautions/Limitations

- Store TAMMSDECK SYSTEM indoors, protected from moisture, at temperatures between 50°F and 90°F (10°C and 32°C)
- Surface and ambient temperature during coating applications should be between 50°F and 90°F (10°C and 32°C)
- Material temperatures should be at least 50°F (10°C) and rising
- Do not apply TAMMSDECK SYSTEM if surface temperature is within 5°F (3°C) of the dew point in the work area
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases
- At elevated temperatures, the DURAL EPOXY PRIMER must be coated with the TAMMSDECK MEMBRANE within 12 hours
- Do not thin TAMMSDECK SYSTEM
- Do not apply TAMMSDECK SYSTEM to slabs on grade
- Do not apply TAMMSDECK SYSTEM if the substrate is subject to excessive moisture vapor drive or hydrostatic pressure
- Although TAMMSDECK SYSTEM is chemically resistant, surface staining of the coating may occur after contact with some chemicals
- Depending on the condition of the substrate, minor surface defects can appear in the coating when applied. Proper surface prep, patching of substrate imperfections, and priming will ensure a better overall finish.
- If coating over old-existing epoxy or urethane coatings, or if more than 24 hours elapses between coats: sand the previous coat, wipe clean, and proceed with coating operations. If old-existing coatings are peeling, flaking, etc., all unsound material must be removed prior to new coating applications.
- Application of a test area is recommended to confirm final appearance and texture of the system with the end user
- TAMMSDECK SYSTEM should not be used on helical ramps. Please use FLEXDECK HEAVY TRAFFIC SYSTEM for this type of application.
- TAMMSDECK MEMBRANE and TAMMSDECK TOPCOAT cannot be re-sealed and re-used after opening. All of the material in an original container should be used after opening.
- In all cases, consult the product Safety Data Sheet before use