

## Product Information

# KEMPERDUR® TC Traffic Coating

**Work pack includes:**

**Component A: White Formulation, Component B: Dark Brown Formulation, Component C: Mineral Filler**

### Product Description

**KEMPERDUR® TC Traffic Coating** is a high performance, self-levelling, mineral-filled topcoat system for use with mineral aggregates to provide a heavy-duty traction-enhanced surfacing. Concrete Substrate applications only.

### Composition & Materials

KEMPERDUR® TC Traffic Coating is a solvent-free, three component, cold-applied liquid aromatic polyurethane coating consisting of Component A, the resin, Component B, the curing agent, and Component C, the mineral filler.

Mineral aggregate of a type selected for the intended application are broadcast into the surfacing mixture to excess while semi-cured, becoming an integral part of the KEMPERDUR® TC Traffic Coating.

### Use

KEMPERDUR® TC Traffic Coating is used as a heavy-duty fire-resistant topcoat over unsurfaced KEMPEROL® cold fluid-applied reinforced polyurethane membrane systems.

Alternatively, KEMPERDUR® TC Traffic Coating is used as a heavy-duty pedestrian and light-duty traffic surfacing system for concrete substrates where a full waterproofing system is not required, such as balconies, terraces, and private parking decks that are not located over finished, occupied space. In this application, KEMPEROL® waterproofing membrane is installed only at perimeter and penetration flashing locations.

### Limitations

KEMPERDUR® TC Traffic Coating may be applied only when the ambient temperature is 41 °F (5 °C) and rising, and the substrate temperature is a minimum of 5 degrees above the dew point.

KEMPERDUR® TC Traffic Coating is intended for application on horizontal surfaces and inclines of up to 10%.

### Yield

45 sq. ft. (4.2 m<sup>2</sup>) per 12.5 kg Workpack

*Note: All yields are approximate and may vary depending upon smoothness and absorbency of substrate.*

### Storage

Always store in cool and dry location. Do not store in direct sunlight or in temperatures below 40 °F (5 °C) or above 80 °F (27 °C). Approximate shelf life 12 months in sealed original containers.

For best use, 24 hours before application, the material is to be acclimated at temperatures between 65-70 °F (18-21 °C).

### Precautions

**Refer to KEMPEROL® Material Safety Data Sheet (MSDS) before using or handling.**

### Surface Preparation

All surfaces must be free from gross irregularities, loose, unsound or foreign material such as dirt, ice, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to adhesion of the primer and surfacing.

Remove or grind down all fasteners, anchors, studs, or other protrusions to achieve a smooth surface.

Seal all openings in the substrate with urethane sealant, either caulking grade or low-rise foam, to prevent primer and coating from dripping through the substrate, as well as to avoid excess material usage.

### Component Properties

Property	Component A Resin	Component B Curing Agent	Component C Mineral Filler
Color	White	Dark Brown	White
Physical state	Liquid	Liquid	Granular
Specific density	1.25	1.24	-
Viscosity	800 mPas	-	N/A
Flash point	212°F (100°C)	356°F (180°C)	N/A

### Surfacing Properties

Physical Property	Values
Standard Color	Beige
Physical state	Cures to solid
Thickness	120 mils (3mm) with aggregate
VOC Content	6 g/l
Usage time*	15 minutes
Water resistant after*	4 hours
Solid to walk on after*	4 hours
Completely hardened after*	8 hours
Water absorption	<1%
Water vapor transmission	0.001 perms

\* values obtained at 73°F, 50% relative humidity, may vary depending upon air flow, humidity and temperature.

Concrete surfaces require abrasion to achieve a roughened surface.

Prepare flashing substrate surfaces as required for standard KEMPEROL® membrane application.

Applications directly to KEMPEROL® waterproofing membranes do not require priming.

For concrete substrates, depending on the substrate condition, KEMPERTEC® EP Primer is either brush/roller-applied as a 100% liquid primer, or is squeegee-applied as a field-mixed slurry consisting of one part EP Primer and one part kiln-dried sand (.65 - .75 mm) by volume.

All cracks, holes, spalls, and other surface defects can typically be sealed/repared with a field-mixed repair mortar consisting of one part EP Primer and 3-4 parts kiln-dried sand (.65 - .75 mm) by volume. Pre-prime the substrate surface with 100% liquid primer before application of the repair mortar to improve the bond to the substrate surface.

Broadcast kiln-dried sand (.65 - .75 mm) into the wet EP Primer in order to improve the bond between the KEMPERDUR® TC Traffic Coating and primer.

Allow EP Primer to cure completely prior to the application of the KEMPERDUR® TC Traffic Coating. Primer cure time is dependent on the ambient temperature, but for ambient application temperatures of 50 °F or greater, cure time is typically overnight, i.e., 12 hours.

## Priming & Surface Repair

## Mixing of Coating

*Note: Prior to opening the containers of KEMPERDUR® TC Traffic Coating, wear appropriate safety glasses and protect hands and wrists by wearing gauntlet-type neoprene gloves. Agitate coating in sealed container prior to use.*

**Step 1:** Premix Component A (white formulation) with a spiral agitator to achieve a smooth consistency throughout.

**Step 2:** Add Component B (dark brown formulation) to Component A, and mix for approximately 1 minute, until the liquid is a uniform grey color, without streaks.

**Step 3:** Transfer liquid mixture to larger container. Gradually add Component C (white filler) to the liquid while mixing continues with a spiral agitator for an additional 1 minute until a smooth, lump free mix is produced.

*Note: Do not exceed mixing times. Do not break down workpacks into smaller units, as an improper mix is likely to occur.*

**Step 4:** For applications to ramps and other sloped surfaces, up to 1% by weight of KEMPERTEC® Thixotropic additive shall be added to the KEMPERDUR® TC Traffic Coating mixture, mixing for an additional 1 minute until all additive has been dispersed into the mixture. Adjust the amount of Thixotropic additive until the desired consistency is achieved.

## Surfacing Application

**Step 1:** Empty mixing bucket of KEMPERDUR® TC Traffic Coating mix onto the primed surface and spread with a 1/4" X 1/4" square - notched trowel to achieve the specified coverage rate.

**Step 2:** Allow the KEMPERDUR® TC Traffic Coating to self-level and begin to cure. This initial curing time will range from 10 - 20 minutes depending on ambient temperature.

**Step 3:** Once material begins to retain a peak after being touched by a finger, immediately broadcast selected aggregate to excess into KEMPERDUR® TC Traffic Coating until a uniform dry aggregate layer has been achieved. Aggregate will initially sink into surfacing, requiring the application of additional aggregate. Sufficient aggregate application is achieved when there are no wet spots remaining. Aggregate application rate is typically 100 lbs. per 100 sq.ft.

**Step 4:** Allow the aggregate-filled KEMPERDUR® TC Traffic Coating to cure for a minimum of 4 hours. A longer curing time may be required depending on ambient temperatures. Surfacing must be fully walkable without being damaged. Remove excess aggregate by brooming and vacuuming. For colored aggregate, apply KEMPERDUR® Eco Finish with a roller at the approximate rate of 0.8 gallons (3 L) per 100 square feet. For vehicular traffic apply KEMPERDUR® EP-FR Finish with a roller at the approximate rate of 0.8 gallons (3 L) per 100 square feet. Allow the Finish to cure overnight or until fully dry before resuming normal foot traffic.

**Step 4a:** (Optional) Apply second coat of sealer to reduce aggressiveness of aggregate finish and improve cleanability.

## Cold Joints In Surfacing

Whenever practical, apply KEMPERDUR® TC Traffic Coating in one continuous application between defined terminations such as roof edges, parapet walls, building walls, and curbs. When a cold joint between two areas is required, the following method is recommended to minimize the appearance of the joint.

**Step 1:** Tape off the edge of the cold joint location. Choose the joint location so that it appears to be in a natural location, such as in line with an outside corner, or following a row of penetrations, or creating application areas of equal size. Typical application area is 500 square feet.

**Step 2:** Apply the KEMPERDUR® TC Traffic Coating to the edge of the tape. When the surfacing has begun to cure, broadcast aggregate to excess into the surfacing and onto the tape. Remove tape immediately following completion of the aggregate application, and allow joint area to fully cure.

**Step 3:** To complete the cold joint, remove all loose aggregate from approximately 6" along the fully cured cold joint area. Carefully apply the KEMPERDUR® TC Traffic Coating, butting the liquid mixture up to the edge of the cured cold joint with a flexible trowel. Ensure that the edge of the cured cold joint is completely wetted with the liquid KEMPERDUR® TC Traffic Coating, with no skips or voids. When the surfacing has begun to cure, broadcast aggregate to excess into the surfacing and onto the cured cold joint surface.

## Aggregate Recommendations For Balconies & Terraces

*Note: Aggregate for pedestrian traffic is selected for comfort, traction enhancement, and appearance. Blends of at least two colors are recommended for best aesthetic appearance.*

- Estes Ceramaquartz S-Grade. (Kiln-dried silica sand with ceramic coating.) Ten Standard Colors, available.

## Aggregate Recommendations For Vehicular Traffic Locations

*Note: Aggregate for vehicular traffic is subjected to higher crushing and fracturing forces. The following aggregates provide additional crushing and fracturing resistance as compared to silica sand-based aggregates.*

- Garnet #16 or #36. Clay Red Color.
- Aluminum Oxide #20 or #30. Brownish Black.
- Silicon Carbide #20 or #30. Charcoal Black.

## Disposal

Cured KEMPERDUR® TC Traffic Coating may be disposed of in standard landfills. This is accomplished by thoroughly mixing all surfacing components together. Note: Uncured KEMPERDUR® TC Traffic Coating resin and hardener, primer components, and sealer are considered hazardous materials and must be handled as such, in accordance with local, state and federal regulations. Do not throw away uncured resin, hardener, primer or sealer.

## Ordering Information

KEMPERDUR® TC Traffic Coating:

Item #:	Size:
325-77-125	12.5 kg Workpack
	Workpack contains Components A, B and C