

Vulkem 346TC

UV-Stable, Single-Component, Polyurethane Top Coat

PRODUCT DESCRIPTION

Vulkem 346TC is a UV-stable, single-component, polyurethane top coat. It is suitable for use with the Vulkem range of polyurethane base coats. Different slip ratings can be achieved by adding Tremco's various aggregates to the Vulkem 346TC top coat.

USAGE/PURPOSE

Vulkem 346TC is suitable for use in areas such as:

- ☐ Podiums
- ☐ Recreational Areas
- ☐ Balconies
- ☐ Mechanical/Plant Rooms
- ☐ Lift/Stair Overruns
- ☐ Roofs

**All applications will require a Vulkem base coat be applied prior to the installation of the Vulkem 346TC.*

PACKAGING

- ☐ Vulkem 346TC - Top Coat: 18.9L

COLOUR

- ☐ Vulkem 346TC - Top Coat: Grey

SHELF LIFE

12 months when stored as recommended in original unopened packaging.

STORAGE

Store in original, undamaged packaging in a clean, dry, protected location.

LIMITATIONS

- ☐ Not suitable for use without a Vulkem base coat.
- ☐ Do not apply to wet or contaminated surfaces.
- ☐ Do not use without adequate ventilation.
- ☐ Do not use in submerged conditions.
- ☐ Do not use where a minimum fall of 1:100 cannot be achieved.



FEATURES & BENEFITS

- ☐ UV-Stable.
- ☐ Single-component top coat provides an efficient use of material for small areas.
- ☐ Suitable for service and maintenance traffic applications.
- ☐ Mildew and fungus resistance helps protect concrete surfaces against environmental contaminants.
- ☐ Re-coatable and compatible with other Tremco sealants, which enhances waterproofing protection with full system compatibility.

SUBSTRATE PREPARATION FOR CONCRETE SURFACES

Please refer to Vulkem base coat Technical Data Sheet for 'SUBSTRATE PREPARATION FOR CONCRETE SURFACES'.

SUBSTRATE PREPARATION FOR ALL METAL SURFACES

Please refer to Vulkem base coat Technical Data Sheet for 'SUBSTRATE PREPARATION FOR ALL METAL SURFACES'.

TYPICAL PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	VULKEM 346TC
Maximum VOC	Method 310	< 100 g/L
Solid content (by mass, %)	ASTM D1353	78 - 83%
Flash Point	Set-A-Flash	29 °C
Drying Time at 23 °C, 50% Relative humidity (RH)	ASTM D1640	6 - 8 hours
Weathering	ASTM D822	N/A
Salt Spray Resistance	ASTM B117	N/A
Accelerated Aging	ASTM D573	No loss of elongation or tensile strength
Hardness (Shore A)	ASTM D2240	85 - 95
Abrasion Resistance (1,000 cycles)	ASTM D4060	50 mg
Elongation at Break	ASTM D412	120%
Adhesion (Peel Strength)	ASTM D903	100% cohesive failure
Adhesion (Pull-Off)	ASTM D4541	N/A
Tear Strength	ASTM D624	54.1 kN/m
Tensile Strength	ASTM D412	24.1 MPa
* Drying times will vary depending on ambient temperature and relative humidity		

JOBSITE MATERIALS

Recommended materials and their uses are as follows:

- ❑ Vulkem 171 Primer: A one-part, film-forming primer to be used on porous surfaces.
- ❑ TREMprime EP Primer: A 100% solids, two-component epoxy primer recommended for use on porous substrates. It may also be used as a compatible tie coat to promote adhesion between otherwise incompatible membranes.
- ❑ TREMproof 200EC Primer: A low-VOC two-component water-based epoxy primer for use on high-moisture concrete slabs where the moisture content is 4.5% or above as measured using a Tramex CME Moisture Meter.
- ❑ Vulkem 191QD Primer: A low-VOC compliant one-part interlaminar primer for use when applying a fresh coat of Vulkem coating or sealant after the preceding coat has been exposed to rain or has exceeded the 24-hour recoat window.
- ❑ TREMprime Non-Porous Primer: A low-VOC primer for use with urethane coatings on non-porous substrates such as metal, PVC and glass.
- ❑ Dymonic 100: A one-part exceptional-movement (+100/-50%) moisture-curing gun-grade polyurethane sealant for use in precast, masonry, expansion joints and control joints, and for forming cant/fillet beads.
- ❑ Tremflex 25FC: A one-part fast-curing flexible fillet joint sealant for use in professional waterproofing applications.
- ❑ TREMproof Aggregate: Silica sand which imparts a textured finish.
- ❑ Vulkem 350R: A rollable grade single-component low-VOC polyurethane base coat.
- ❑ Vulkem NEM Plus: A rollable grade single-component polyurethane base coat.

USAGE

The following table provides a guide to estimate material usage. Coverage rates do not include allowance for on-site material wastage or reduced coverage due to substrate porosity or aggregate profile.

PRODUCT	COVERAGE RATE		THICKNESS	
Vulkem 346TC	2.6 m ² /L	49.1 m ² /pail	0.38 mm (wet-film)	0.25 mm (dry-film)

PRIMING

Please refer to Vulkem base coat Technical Data Sheet for 'PRIMING'.

DETAIL WORK

Please refer to Vulkem base coat Technical Data Sheet for 'DETAIL WORK'.

COATING APPLICATION

Option 1. Maintenance Foot Traffic or Light Intermittent Foot Traffic

1. Mix Vulkem 346TC with a suitable electric paddle mixer at 500 rpm for a minimum of 3 minutes. Ensure there is no settlement at the base of the drum.
2. Apply Vulkem 346TC, as per the Usage table, to the entire area to be coated including detail coats but excluding expansion joints. The recommended method of application is with a notched squeegee. Cross-rolling may be used if the coating needs to be levelled. Vulkem 346TC may also be applied with a solvent-resistant medium-nap roller sleeve, 9.5 mm to 12.7 mm.
3. If a higher non-slip rating finish is required, broadcast TREMproof Aggregate into the wet Vulkem 346TC to achieve the required slip rating and back-roll.
4. The textured finish of the completed deck coating system assists with wear and slip resistance. Tremco recommends that the applicator completes a test patch and obtains customer approval before full application.
5. Do not open to foot traffic for a minimum of 24 hours following full cure of Vulkem 346TC.

Option 2. Light Pedestrian Foot Traffic

1. Mix Vulkem 346TC with a suitable electric paddle mixer at 500 rpm for a minimum of 3 minutes. Ensure there is no settlement at the base of the drum.
2. Apply Vulkem 346TC, as per the Usage table, to the entire area to be coated including detail coats but excluding expansion joints. The recommended method of application is with a notched squeegee. Cross-rolling may be used if the coating needs to be levelled. Vulkem 346TC may also be applied with a solvent-resistant medium-nap roller sleeve, 9.5 mm to 12.7 mm.
3. Apply a second coat of Vulkem 346TC, as per the Usage table, over the existing Vulkem 346TC.
4. If a higher non-slip rating finish is required, broadcast TREMproof Aggregate into the wet Vulkem 346TC to achieve the required slip rating and back-roll.
5. The textured finish of the completed deck coating system assists with wear and slip resistance. Tremco recommends that the applicator completes a test patch and obtains customer approval before full application.
6. Do not open to foot traffic for a minimum of 24 hours following full cure of Vulkem 346TC.

Option 3. Moderate Pedestrian Foot Traffic

1. Mix Vulkem 346TC with a suitable electric paddle mixer at 500 rpm for a minimum of 3 minutes. Ensure there is no settlement at the base of the drum.
2. Apply Vulkem 346TC, as per the Usage table, to the entire area to be coated including detail coats but excluding expansion joints. The recommended method of application is with a notched squeegee. Cross-rolling may be used if the coating needs to be levelled. Vulkem 346TC may also be applied with a solvent-resistant medium-nap roller sleeve, 9.5 mm to 12.7 mm.
3. Immediately after applying Vulkem 346TC, broadcast TREMproof 16/30 Aggregate to refusal into the wet coating. Allow Vulkem 346TC to cure for 4–8 hours or until it is tacky but firm enough that the coating will not be displaced during excess sand removal.
4. Sweep off any excess sand that is not well bonded to the Vulkem 346TC membrane using a stiff-bristled broom.
5. Apply a second coat of Vulkem 346TC, as per the Usage table, over the existing Vulkem 346TC that had previously received the TREMproof Aggregate to refusal (flood coat).
6. If a further non-slip finish is required, broadcast TREMproof Aggregate into the wet Vulkem 346TC to achieve the required slip rating and back-roll.
7. The textured finish of the completed deck coating system assists with wear and slip resistance. Tremco recommends that the applicator completes a test patch and obtains customer approval before full application.
8. Do not open to foot traffic for a minimum of 24 hours following full cure of Vulkem 346TC.

CLEAN UP

- ❑ Clean all adjacent areas to remove any stains or spills with Tremco Xylol.
- ❑ Clean tools and equipment with Tremco Xylol before the material cures.
- ❑ Clean hands by soaking in hot soapy water, then brushing with a stiff-bristled brush.

TROUBLESHOOTING

This section describes common industry application issues when certain environmental conditions exist and their remedies. If any of these should occur, it is always recommended that you contact your local Tremco Representative:

1. When a deck contains too much moisture, the moisture may change into a vapour, which then condenses at the concrete-membrane interface before the coating has cured and may cause blisters or

bubbles, ultimately interfering with proper adhesion. If this should occur, the blisters can be cut out, allowing moisture to escape. After moisture has escaped and the surface is dry, the area can be repaired.

2. If the coating application has been installed at a thickness that is greater than our installation instructions, pinholes, blisters or bubbles may develop in the coating. To avoid this occurrence, the material should be applied in accordance to the installation instructions.
3. If the coating is applied in very hot ambient temperatures, the air in the small spaces between the concrete particles increases in volume and forms blisters. Contact Tremco should this occur.
4. If the previous coating application has not fully cured, solvent may become trapped between the coats and lead to large blisters. When cut out, they may still be tacky on the underside. Blisters may be cut out and repaired after the surface has been allowed to fully dry.

WEATHER IMPACT ON COATING APPLICATION

This section discusses the impact of applying these coatings outside the ideal temperature application range of 18 to 30°C at 50% RH.

1. At temperatures lower than the ideal range, the material will become viscous and it will cure at a slower rate. Refer to the chart below for approximate cure rates at varying temperatures.
2. Storing materials at cooler or warmer temperatures than ideal, will affect the handling and curing characteristics of the materials.
3. Substrate temperatures may affect cure rates even when ambient temperatures are high.
4. Enclosed areas may slow the cure rate of the coating because humidity levels tend to be low in these conditions due to the low exchange of air over the membrane.
5. In extremely dry conditions, even when temperatures are high, cure rates can still be extended.

Approximate Cure times in Hours at 50% RH.	Vulkem 346TC
4.4°-12.8° C	24 - 28 h
12.8°-18.3° C	12 - 24 h
18.3°-29.4° C	6 - 8 h
29.4° C	4 h

Variations in temperature and humidity can affect the cure rate of the coating. The above chart should be used as a guide only to determine the approximate rate of cure. Other factors can also influence the cure rate such as substrate temperature and enclosed environments. For more information about proper application procedures please refer to the Installation Instructions or contact Technical Services.

HEALTH & SAFETY PRECAUTIONS

The Safety Data Sheet (SDS) must be read and understood prior to use.

TECHNICAL SERVICE

Tremco CPG Australia Pty Ltd has a team of Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.

GUARANTEE/WARRANTY

Tremco CPG Australia Pty Ltd products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG Australia written instructions and (b) in any application recommended by Tremco CPG Australia, but which is proved to be defective, will be replaced free of charge.

Any information provided by Tremco CPG Australia in this document in relation to Tremco CPG Australia's goods or their use is given in good faith and is believed by Tremco CPG Australia to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. Tremco CPG Australia makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

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