

# TECHNICAL DATA SHEET

## UPS 509 UVST UV STABLE TOP-COAT



**UPS 509 UVST UV Stable Topcoat** is a two-pack solvent based polyurethane UV stable coating.

Once cured it offers a tough UV resistant finish with excellent durability and light fastness. The product is normally used as a UV stable finishing layer to surfaces previously coated with UPS 405 EPC Epoxy Protective Coating or UPS 908 MP Metal Primer.

### Product Information

#### Product Features

- Suitable for use in flooring and corrosion protection applications.
- Ideal for protection against UV degradation, corrosion and weathering.
- Combines good application characteristics with excellent gloss and colour retention.
- Widely used throughout the rail and road infrastructure for bridge protection.
- Excellent chemical and solvent resistance.
- Available in a wide range of colours.

#### Product Applications

UPS 509 UVST is typically used within;

*External surfaces of pipelines, tanks and other land and marine structures.*

#### Surface Preparation

##### Metallic Substrates – UPS Corrosion Protection System

UPS 509 UVST must be used as part of the UPS Corrosion Protection System, UPS 509 UVST can be used as a UV stable topcoat to surfaces prime with UPS 908 MP Metal Primer or UPS 405 EPC Epoxy Protective Coating.

##### Metallic Substrates – Mechanical Abrasion

1. All oil and grease must be removed from the surface using an appropriate cleaner such as UPS 9918 MEK Cleaner.
2. All surfaces must be mechanically abraded using handheld grinders to ISO 8501/4 STT3 (SSPC SP3 ST3).
3. Once abraded, the surface must be degreased and cleaned using UPS 9918 MEK or similar type material.
4. Prime the prepared metallic surface with UPS 908 MP Metal Primer (applied at 150 microns (6mil) WFT or UPS 405 EPC Epoxy Protective Coating (applied at 250 microns (10mil) WFT).

##### Concrete Substrates – UPS Corrosion Protection System

UPS 509 UVST must be used as part of the UPS Corrosion Protection System, UPS 509 UVST can be used as a UV stable topcoat to surfaces prime with UPS 908 MP Metal Primer or UPS 405 EPC Epoxy Protective Coating.

#### Existing Concrete

1. If the concrete is contaminated, pressure wash using clean water.
2. Once the concrete is dry, lightly abrasive blat or scarify taking care not to expose the aggregate.
3. Clean all dust and debris from the surface.
4. Prime the prepared area with UPS 909 PP (applied at 150 microns (6mil) WFT). Or UPS 905 DP (applied at 150 microns (6mil) WFT).

#### New Concrete

1. Allow new concrete to cure for a minimum 21 days and treat to remove any surface laitance.
2. Check the moisture content of the concrete prior to coating (8% moisture content or below).
3. Lightly scarify the surface taking care not to expose the aggregate.
4. Clean all dust and debris from the surface.
5. Prime the prepared area with UPS 909 PP (applied at 150 microns (6mil) WFT). Or UPS 905 DP (applied at 150 microns (6mil) WFT).

#### Mixing

*Prior to mixing please ensure the following:*

1. The base component is at a temperature between 15-25°C (60-77°F).
2. The ambient & surface temperature is above 10°C (50°F).
3. The ambient & surface temperatures are not less than 3°C (37.4°F) above the dew point.

*Then proceed with mixing the product:*

1. Transfer the contents of the Activator unit into the Base container.
2. Using a paddle mixer, mix the components well until a uniform material free of any streaks is achieved.
3. From the commencement of mixing the whole of the material should be used within 30 minutes at 20°C (68°F).

#### Application

Brush or Roller applications -

1. Pour mixed product into a paint tray.
2. Stripe coat surface edges, joints, corners and equipment with a 100mm (2") wide stripe, at a wet film thickness of 100 microns (4 mil).
3. Once the stripe coat has cured sufficiently and is capable of being overcoated, apply 1<sup>st</sup> coat at a thickness of 100 microns (4 mil).
4. Once the 1<sup>st</sup> coat of material has cured, approximately 90 minutes at 20°C (68°F), apply a 2<sup>nd</sup> coat of material to all surfaces at 100 (4 mil) microns wet film thickness.

### Technical Data & Performance

#### Coverage Rates

**5LTR (1.3 US Gallon) of fully mixed product will give the following coverage rates -**

50m<sup>2</sup> at 100 microns      536ft<sup>2</sup> at 4mil

*Please note that the coverage rates quoted are theoretical and do not take into consideration the profile or condition of the surface being repaired.*

#### Drying & Cure Times

*At 20°C (68°F) allow the applied materials to harden for the times shown below before subjecting them to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures.*

<b>Useable Life</b>	30 minutes
<b>Minimum overcoating time</b>	90 minutes
<b>Maximum overcoating times</b>	36 hours



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### Appearance

<b>Mixed Material Colour</b>	Available in a wide range of colours
<b>Base Component Colour</b>	Thin film liquid
<b>Activator Component</b>	Clear liquid

### Available Colours

Any RAL / BS

### Over Coating Times

<b>Minimum</b>	The applied material can be over coated as soon as it is touch dry (approx. 90 mins at 20°C (68°F) at 20°C (68°F)
<b>Maximum</b>	The over coating time should not exceed 36 hours

*Where the maximum over coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.*

### Mixing Ratio

Component	Base	Activator
<b>By Weight</b>	5.5	1
<b>By Volume</b>	4	1

### Density

<b>Base</b>	1.514
<b>Activator</b>	1.035
<b>Mixed</b>	1.418

### Solids Content

55%

### Slump Resistance

Nil at 150 microns

### Useable Life

<b>10°C (50°F)</b>	60 minutes
<b>20°C (68°F)</b>	30 minutes
<b>30°C (86°F)</b>	15 minutes
<b>40°C (104°F)</b>	7.5 minutes

### Pack Sizes

5LTR (1.3 US Gallon)

### Shelf Life

2 years if unopened and store in normal dry conditions (15-30°C / 60-86°F)

### Mechanical Properties

<b>Tensile Shear Adhesion</b> ASTM D1002 (Abrasive Blasted Mild Steel with 75 micron profile)	195kg/cm <sup>2</sup> (2,770 psi)
<b>Salt Fog Resistance</b> (ASTM B117)	Unaffected after 10,000 hours
<b>Corrosion Resistance</b> ASTM B117	Minimum 5,000 hours
<b>Humidity Resistance</b> (BS3900)	Unaffected 5,000 hours
<b>UV Resistance</b> (ASTM G53)	Unaffected 1,000 hours

### Heat Resistance

Suitable for use in immersed conditions at temperatures up to 50°C (122°F) dependent on chemical contact

Dry conditions up to 130°C (266°F) dependent on chemical contact

### Chemical Resistance

The product demonstrates resistance to a wide variety of inorganic acids, alkalis, salts and organic media. For more detailed information, please contact Unique Polymer Systems Technical Centre.

### Global Availability

UPS 509 UVST UV Stable Top Coat is available from a network of Global Distributors for prompt delivery. For further details and the location of your local distributor, please contact Unique Polymer Systems on:

+44(0) 1531 636300 | sales@uniquepolymersystems.com

### Technical Service

Complete technical assistance is available. Please contact Unique Polymer Systems with your requirements:

+44(0) 1531 636300 | sales@uniquepolymersystems.com

**The products that we supply are for professional use only, it is your responsibility to read the technical data sheets before you place an order and prior to application of the product.**

**Quality:** All Unique Polymer Systems Products are supplied under the scopes of the company's fully documented quality system.

**Warranty:** Unique Polymer Systems warrants that the performance of the product supplied will conform to the typical descriptions quoted within this Technical Data Sheet provided the material is stored correctly and used according to the procedures detailed in the Technical Data Sheet for the material.

**Health & Safety:** Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read the fully detailed Material Safety Data Sheet.

**Legal Notice:** The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine the products suitability for use. Unique Polymer Systems accepts no liability arising out of the use of this information or the product described herein.



**USED ALL OVER  
THE WORLD**