



UPS 509 UVPU Polyurethane UV Stable Coating is a two-pack solvent based polyurethane UV stable coating. The product once cured offers a tough UV resistant finish with excellent durability and light fastness. It allows quick turnaround due to its paid film hardening properties and offers excellent chemical and solvent resistance. The material is UV stable, has good anti-corrosive properties and is designed for the long-term protection of steel and concrete structures against weathering and environmental corrosion.

Operating temperature ranges from -20°C to 60°C. the material is normally used in conjunction with *UPS 405 CRSG / UPS 406 CRXF & UPS 908 AP & UPS 505 DWPU*.

Product Features

- Combines good application characteristics with excellent gloss and colour retention.
- Suitable for use in flooring and corrosion protection applications.
- Widely used throughout the rail and road infrastructure for bridge protection.
- Excellent chemical and solvent resistance.

Product Applications

Clear or pigmented finishing coat for multi-coat systems on structural steel.

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

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

Surface Preparation

Metallic substrates coated with *UPS 405 CRSG / UPS 406 CRXF* or *UPS 908 AP*.

The product can be applied to the surface of either product once they have reached there over coating window. Please be aware for strong colours two coats maybe required.

Previously coated surfaces

The steel surface must be degreased and cleaned using *UPS TAC 883 Universal Cleaner* or MEK and all loose material and surface contaminants removed. Where spot corrosion has occurred, the area can be coated by roughening the surfaces using MBX, needle gun, grinder or wire brush and then over coated with *UPS 908 UVPU*.

Mixing & Application

Transfer the contents of the Activator unit into the Base container and mix thoroughly until a uniform material free of any streaks is achieved. From the commencement of mixing the whole of the material should be used within 30 minutes at 20°C.

Brush or Roller

Apply the mixed material onto the prepared surface by brush or roller. this should be in two coats at a target wet film thickness of 150 microns per coat using a practical coverage rate of 5.5m² per litre per coat. Apply the second coat as soon as possible after the first coat is dry and not in excess of 36 hours. Where the maximum over-coating interval is exceeded, the first coat should be sweep blasted and cleaned prior to over-coating.

Spray Application

Where spray application is required, this should be carried out by airless spray using an input pressure of 60 psi and a tip size of 0.23 – 0.43mm.

Physical Constraints

Mixing Ratio	Base	Activator
By Volume	4	1
By Weight	4.5	1

Colour	Light Grey or Clear
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Drying & Cure Times at 20°C (68°F)	
Useable Life	30 minutes
Minimum Over Coating Time	1.5 hours
Movement Without Load	8 hours
Light Loading	16 hours
Maximum Over Coating Time	36 hours
Full Loading / Water Immersion	3 Days
Chemical Contact	7 Days

Volume Solids	55%
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Film Thickness	150 microns per coat (2 coat system)
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Theoretical Coverage Rate	Brush & Roller – 5m ² / litre @ 150 microns Spray – 4.5m ² / litre @ 150 microns
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Shelf Life	
Use within 5 years of manufacture date. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).	

Chemical Resistance	
The product resists attacked by a wide variety of low concentration industrial chemicals including;	
Aluminium Sulphate	
Brine	
Calcium Sulphate	
Crude Oil Sweet	
Ferric Chloride	
Hydraulic Oil	
Lubricating Oil	
Natural Gas	
Vinegar	
Wax	
Zinc Chloride	

Physical Properties

Salt Fog Resistance ASTM B 117	Unaffected after 100000 hours
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Corrosion Resistance ASTM B 117	Minimum 500 hours
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UV Resistance ASTM G 53	Unaffected 1000 hours
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Abrasion Resistance ASTM D 4060	23mgm weight loss per 500 cycles
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Impact Resistance BS 2782 Part 3	No failure 0.9kh load dropped 45cm
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Heat Resistance	Suitable for use in immersed conditions at temperatures up to 50°C. Resistant to dry heat up to 130°C dependent on load.
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Packaging

UPS 509 UVPU is supplied in the following;
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Health And Safety

As long as normal good practice is observed UPS 509 UVPU can be safely used. Protective gloves should be worn during use.

A fully detailed Material Safety Data Sheet is either included with the material or is available on request.

The information provided in this Technical Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of Unique Polymer Systems LTD. Users should determine the suitability of the product for their own particular purposes by their own tests.

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