



UniquePolymerSystems.com

The Engineer's Choice

... for Solutions

UPS 444 UV Urethane Coating has been developed to provide a durable gloss finish for use as the final coat of *Unique* coating systems in the construction and transport industries, where an area of removal of graffiti is required.

Product Features

- Combines good application characteristics with excellent gloss and colour retention.
- Suitable for use in corrosion protection applications.
- **Abrasion** – Good resistance to abrasion and mechanical damage.
- **Adhesion** – Excellent on correctly prepared and primed surfaces.
- **Chemical Resistance** – The fully cured coating offers excellent resistance to aqueous solutions, oils, fats and a wide range of industrial chemicals.
- **Temperature Resistance** – Dry service temperature range up to 100°C.

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

Surface Preparation

All surfaces should be prepared and primed in accordance with the appropriate *Systems Recommendation*.

Primed surfaces should be clean, dry and free from contamination.

Application Procedures

Mixing

To ensure a homogenous mix, Base should be stirred then whilst continuing stirring the Activator should be added and thoroughly mixed.

Application

Application should not be carried out when relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point. The minimum temperature for application is 2°C.

Brush – Good quality brushes should be used with even strokes, ensuring that the *UPS 444 UV* is not over-brushed leading to less than the specified coating thickness.

Roller – Short pile mohair rollers are the preferred equipment for this application method. *UPS 444 UV* should be spread evenly with regular checks made to ensure the correct uniform wet film thickness is achieved.

UPS 444 UV does not normally require thinning for brush / roller application. Where thinning is required *UPS 881 Thinners* may be added.

Airless Spray: Typical spray settings are as follows

- Pump Ratio 32:1
- Tip Size 0.013 – 0.015"
- Tip Pressure 2000 psi

Excessively high tip spraying pressure should be avoided. The minimum pressure at the pump conducive to good atomization should be used. *UPS 444 UV* may require the addition of up to 10% *UPS 881 Thinners* for airless spray application.

Conventional Spray: Most types of equipment are suitable.

- Pressure Pot
- Needle Set Up 1.1 – 1.8mm

UPS 444 UV may require thinning by up to 20% *UPS 881 Thinners* for conventional spray application.

Physical Constraints

Mixing Ratio	Base	Activator
By Volume (Full & Semi Gloss)	3	1
By Volume (Matt & Low Gloss)	4	1

Colour	Manufactured to order from a select range of BS, RAL or NCS colour standards
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Drying & Cure Times at 20°C (68°F)	
Useable Life	Approx 2 hours
Touch Dry	3 – 4 hours
Hard Dry	16 hours
Over Coating Minimum	6 hours
Coating Maximum	24 hours
Full Cure	7 days

Volume Solids	55%
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V.O.C	425 – 485g/litre depending on colour (As Supplied) 463 – 520g/litre depending on colour (Thinned 30%)
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Film Thickness	Wet 72 microns Dry 40 microns
Note: The actual thickness to be applied should be agreed between the specifier and the manufacturer dependent on operational performance criteria.	

Theoretical Coverage Rate	13.75m ² / litre @ 40 microns dft.
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Potable Water Approval	UK Water Regulations Advisory Scheme – Approved Product
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Shelf Life	Use within 2 years of manufacture date. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).
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Physical Properties (applied over UPS 907 MC Primer)

Abrasion Resistance ASTM D 4060	25mgm weight loss per 500 cycles – 1kg load – CS10 wheel
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Impact Resistance BS 2782 – 3	No failure (0.9kg (1.98 lbs) load dropped 45cm (18 inches))
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Dry Heat Resistance ASTM D 2485	100°C (212°F)
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Direct Pull Adhesion ASTM D 4541	6.2Mpa (900 psi) – Steel 4Mpa (600 psi) – Concrete (Concrete failure)
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Salt Fog Resistance ASTM B 117	1000 hours (300 microns dft)
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UV Resistance ASTM G53	1000 hours QUV-B no loss of gloss, no colour change
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Reaction to Fire	Class 0 (BS476 – 6) Class 1 (BS476 – 7)
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Packaging

UPS 444 UV is supplied in the following;

4lt
20lt

Health And Safety

As long as normal good practice is observed UPS 444 UV 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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