

## UPS 502 Poly – Nox Encapsulation Coating

### Single Component Water Based Anti-Corrosive and Encapsulation Coating

UPS 502 Poly-Nox is a high performance acrylic coating designed for use as a corrosion resistant and encapsulation system for metallic and cementitious surfaces.

UPS 502 Poly-Nox is based on a unique blend of flexible acrylic resins reinforced with inorganic fillers and pigments to produce a system with excellent elastomeric and corrosion resistant properties with optimum level of UV resistance, adhesion and durability.

UPS 502 Poly-Nox is simple and easy to use and can be applied to any surface and is ideal for the long term protection of tanks exteriors, steel structures, metal roofs, concrete and masonry structures.

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

#### SURFACE PREPARATION

All surfaces should be clean, dry and free from oils, grease, loose material, standing water and any other contaminants.

**Concrete Surfaces:** All concrete to be coated should either be lightly abrasive blast cleaned using wet or dry abrasive techniques or alternatively high pressure water jetting. Care must be taken not to expose the aggregate in the concrete. All dust and abrasive material shall be removed from the surface prior to coating.

**Metal Surfaces:** Should be prepared by mechanical wire brushing, grinding or high pressure water jetting (typically 3500psi) to achieve Swedish Standard St3 or equivalent, taking particular care when cleaning badly pitted surfaces.

**Previously Coated Surfaces:** Any loose/flaking material must be removed. Surfaces should then be thoroughly cleaned and abraded.

#### MIXING

UPS 502 Poly-Nox is a single component material and should only require stirring with a slow speed mechanical mixer prior to use to incorporate any slight separation.

#### APPLICATION

Application should not be carried out at temperatures below 7°C nor when relative humidity exceeds 85% or when the surfaces to be coated is less than 3°C above the dew point.

UPS 502 Poly-Nox can be applied by brush, roller or spray.

For brush application good quality stiff bristled brushes should be used.

For roller application medium to long pile rollers should be used.

UPS 502 Poly-Nox should be applied to achieve a minimum dry film thickness of 350 microns (14 mils) either as a single coat by spray or two coats by brush. For brush application the first coat should be allowed to dry to the touch (approximately 60 minutes depending on substrate and weather conditions) prior to the second coat being applied.

All equipment should be cleaned IMMEDIATELY after use with clean water, any stubborn deposits can be removed with **UPS Universal Cleaner**.

#### Theoretical Coverage Rate

2 m<sup>2</sup>/litre at 300 microns dft

#### Typical Film Thickness

Wet 500microns

Dry 300microns

Detailed working recommendations are available from the Technical Centre on request.

**PHYSICAL CONSTANTS**

<b>Mixing Ratio</b>	Supplied ready for use.	
<b>Appearance</b>	Viscous Coloured Liquid.	
<b>Drying &amp; Cure Times at 20°C/68°F</b>	Touch Dry	60 minutes
	Minimum Overcoating	60 minutes
	Hard Dry	24 hours

**NOTE:** The above drying times are for good drying conditions. These times will be extended in cold, humid conditions with poor air movement.

**Volume Solids** 60%

**V.O.C.** Nil

**Shelf Life** Use within 2 years of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).  
PROTECT FROM FROST

**PHYSICAL PROPERTIES**

<b>Tensile Strength</b> ASTM D412	2.9N/mm <sup>2</sup>
<b>Tensile Elongation</b> ASTM D412	250%
<b>Salt Spray Resistance at 350 Microns on grit blasted steel</b> ASTM B117	Unaffected 1000hrs, no blistering, no corrosion at scribe, no loss of adhesion
<b>UV Resistance</b> ASTM G53	Unaffected 1000hrs
<b>Humidity Resistance applied At 350 microns onto grit blasted Steel</b> ASTM D2247	Unaffected 1000hrs, no blistering, no sorrosion, no loss of edhesion
<b>Water Vapour Permeability</b> ASTM E96	20gm.mm/m <sup>2</sup> /24hr
<b>Impact Resistance</b> ASTM D2444	120ins.lbs
<b>Cold Weather Flexibility</b> ASTM D522	Pass ½ inch mandrel @ -25°C / -15°C
<b>Abrsaion Resistance</b> ASTMD4060	15mgm weight loss, CS16 wheel 500gm load 1000 cycles
<b>Accelerated Weathering</b> ASTM D4798	No cracking, checking after 100 hours exposure

**HEALTH AND SAFETY**

As long as normal good practice is observed **UPS 502 Poly-Nox** can be safely used.

When spraying **UPS 502 Poly-Nox** the use of vapour masks is advisable.

The use of protective gloves is advisable during use.

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

**PACKAGING**

Supplied in 20 litre units

**COLOURS**

Available in: Black, greys, white and other selected colours subject to minimum batch quantity..

The information provided in this Product 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 the company. Users should determine the suitability of the product for their own particular purposes by their own tests.



**Unique Polymer Systems LTD**

**Unit 1 Bankside Industrial Estate, Ledbury, Herefordshire, HR8 2DR**

**Tel: +44(0)1531 63 63 00**

**E Mail: sales@uniquepolymersystems.com**

**Web: www.uniquepolymersystems.com**