May 2011 RA56

Resene Uracryl 403

urethane acrylic gloss finish

Resene Uracryl 403 is a unique high performance two component finish with coat excellent resistance to abrasion, moisture. petroleum solvents and mineral and vegetable oils, alkalis and acids. The most unusual feature of Resene Uracryl 403 is that, unlike most other classes of high performance coatings, it looks as good as it protects. The sophisticated combination aliphatic urethanes and urethane reactive acrylic resins gives a system unsurpassed for gloss and colour retention.

exterior/interior

Typical uses

As a long-life high-gloss topcoat for use over a wide variety of materials where aesthetic appearance is required together with excellent durability and very good chemical resistance.

Marine environments, aluminium, anti-graffiti, bridges, canopies, chemical plants, concrete wall surfaces, dairy factories, fibre cement, food processing plants, furniture, G.R.C panels, meat works, previously painted surfaces, pulp and paper mills, refineries, roofing, steel doors, balustrades, structural steel, tank farms

Physical properties

Vehicle type Urethane reactive acrylic **Hardener** Aliphatic urethane

Pigmentation Light fast chemically resistant types

Solvent Aromatic, ester **Pot life** 3-4 hours at 18°C

Mix ratio 3 parts base: 1 part hardener (by volume)

Finish High gloss

Colour Clear, white, selected BS2660, BS5252, Resene

Total Colour System and Resene white colours

Dry time (minimum) 1.5 hours tack free at 18°C
Recoat time (minimum) Brush/roller: 12 hours at 18°C
Primer required Yes, dependent on substrate

Theoretical coverage 10 sq. metres per litre (50 microns DFT)

50 microns per coat

Pigmented systems 1-2, clear systems 3-4

Excellent Excellent Very good Very good

Hardener and mixed product contain small amounts

of monomeric di-isocyanate

Excellent

Resene Thinner No.8 (brush/roller application)

Resene Thinner No.7A (spray application)

Pack size 1 and 4 litre composites

Performance and limitations

Performance

Recommended DFT

Abrasion resistance

Chemical resistance

Thinning and clean up

Toxicity (dry film)

Usual no. of coats

Solvent resistance

Heat resistance

Durability

- 1. Enables use of high performance urethanes when spray application is difficult or undesirable.
- 2. Fast drying.
- 3. Positive curing even at low temperatures.
- 4. Excellent topcoat for brush application over epoxy coatings where gloss and colour retention is paramount.
- 5. Acrylic modification imparts ready self recoating with minimal preparation.
- 6. Excellent graffiti resistance.

Limitations

- 1. Not recommended as a tanklining.
- 2. In early stage of curing, film may be susceptible to mechanical damage.
- 3. Not recommended for direct application to zinc rich primers, such as inorganic zinc silicates.
- 4. Not recommended as a clear waterproofing system for concrete block and honed concrete block construction.

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of product. If in doubt contact Resene.

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Surface preparation

Concrete

Leave new concrete to cure for a minimum of 28 days before painting. Surfaces shall be free of laitance, form release agents, curing agents, oil, grease and other penetrating contaminants. Concrete floors must be profiled by captive blasting, abrasive blasting, diamond grinding, or acid etching (see Data Sheet D83). Profiling should produce a profile similar to 180 grit sandpaper. If this is not achieved, repeat the profiling process. After profiling fill all small holes or voids by application of Resene Epox-O-Bond (see Data Sheet D808). Use of Resene Epox-O-Bond filler is only suitable when finishing with pigmented Resene Uracryl systems.

Fibre cement

Clean down to remove all dirt, dust and loose material. Ensure surface is free from oil, grease and mould. Seal with Resene Aquapoxy thinned 10%. Allow to cure for 24 hours then lightly sand surface to remove raised fibres.

Galvanised steel, Zincalume, aluminium and repaints

Remove oil or grease film with Resene Roof Wash and Paint Cleaner (see Data Sheet D88) and rinse thoroughly. Prime with Resene Vinyl Etch (see Data Sheet RA31). Old painted surfaces should be sound, clean and sanded to give a surface free from chalking, flaking paint, dirt, mould or grease. A test patch should be done to check that Resene Uracryl 403 does not lift the old paint. Spot prime any bare metal with recommended substrate primer.

Particle board, timber

Sand to establish a smooth clean surface. Stop all nailholes, joints and other surface irregularities. Apply cross-linking acrylic primer.

Steel

Degrease according to SSPC SP1 solvent cleaning. Remove all weld spatter, grind weld seams and sharp edges. Ensure complete removal of all weld flux by wire brushing followed by washing with copious quantities of freshwater. Dry abrasive blast to a minimum of SSPC SP10 (Sa 2.5). Blast to achieve a 25-50 micron anchor profile. Apply zinc rich or epoxy primer.

Residues and dust from old paint systems containing lead or chromate may be dangerous to the health of the operator and the environment. Ensure approved procedures are put in place to safeguard against this.

Application

Mixing

Stir each component separately using an explosion-proof mixer. Add total contents of hardener container to total contents of base. Power mix until uniformly blended and allow mixed product to stand for 10-15 minutes prior to application.

Application

Roller, brush, spray. Thin as required according to application method. When brushing or rolling work in a continuous direction and immediately lay-off with a brush if bubbles persist.

Clear systems for concrete/fibre cement: Apply Resene Uracryl 403 Clear as the sealer coat followed by a minimum of two coats of Resene Uracryl Clear in the desired gloss level.

Safety precautions

- 1. Consult Safety Data Sheet for this product prior to use. Users should ensure that they are familiar with all aspects concerning safe application of this product. IF IN DOUBT, DO NOT USE THIS PRODUCT
- 2. The hardener is sensitive to moisture and should be kept tightly sealed when not in use.
- 3. The hardener contains a trace (less than 1%) of hexamethylene di-isocyanate, which is of course further diluted when blended with the base. When brushed or rolled, normal ventilation procedures used with solventborne systems will ensure that the level in the air never reaches a M.A.C. of 0.02 p.p.m. As with any solventborne system, if adequate ventilation is not available, a respirator should be worn. When sprayed, mixed product may be harmful by inhalation. Wear suitable protective clothing, gloves, eye and face protection, including suitable breathing protection such as an air-supplied respirator or hood.
- 4. Do not breathe vapour. Avoid contact with skin and eyes. If eyes become contaminated flush with water for a minimum of 15 minutes. SEEK MEDICAL AID IMMEDIATELY. Wear suitable protective clothing, gloves and eye and face protection.
- 5. FLAMMABLE keep away from sparks and open flame.

Please ensure the current Data Sheet is consulted prior to specification or application of Resene products. If the surface you propose to coat is not referred to by this Data Sheet, please contact Resene for clarification.