

Acronal[®] PRO 8977

General

Acronal[®] PRO 8977 is a self-crosslinking APEO free polymer dispersion for the water-based anti-corrosion coatings for medium-duty applications.

Key features & benefits

good corrosion and humidity resistance
excellent block resistance
good early water resistance
good sandability after 2hrs drying at room temperature
high pigment loading (PVC=35%)
APEO free, ecological

Chemical nature

acrylic emulsion

Properties

Appearance

Milky white liquid

Typical characteristics

(should not be interpreted as specifications)

solids by weight	50%
viscosity at 25 °C	200 mPa·s
pH value	9.5
density at 25 °C	1.04 g/mL
MFFT	37 °C
freeze/thaw stable (-5°C)	yes

Application

Acronal[®] PRO 8977 is a medium viscosity dispersion crosslinking on drying to form clear, no tacky films. Adding of suitable anti-corrosion pigments and extenders allows to formulate coatings with outstanding anti-corrosion protection. Topcoats can be colored to almost any desired shade.

Performance

Acronal[®] PRO 8977 is a self-crosslinkable acrylic emulsion that offers good compatability with anti-corrosion pigments and good UV stability resulting in a broad variety of coatings formulations for metal substrates. Even the unpigmented films are quite resistant to flash rust. Acronal[®] PRO 8977 exhibits good early water resistance and excellent adhesion to a wide range of metals even for difficult substrates such as zinc or aluminium.

Formulation guidelines

Coalescent

To achieve good film formation, it is necessary to have sufficient coalescent present after most of the water has evaporated. Acronal® PRO 8977 has been shown to form a good film at room temperature when levels of approx. 2%~4% coalescent are used. As drying conditions become more severe (below 15°C and/or above 70% relative humidity), slower evaporating and/or hydrophobic coalescents (e.g. Texanol® Solvenon® DPnB or PP) will be required to achieve good film formation.

Foam Control

a defoamer e.g. Foamstar® SI 2292 is recommended.

Thickener

Acrona® PRO 8977 can be formulated to give a high viscosity without using additional thickener. However, if a further increase in viscosity is desired, we recommend for Newtonian rheology behavior (brush application) Rheovis® PU 1214. For spray application (pseudo plastic rheology) we recommend Rheovis® PU 1190 or Rheovis® PU 1250.

Pigment dispersion

Acronal® PRO 8977 is shear stable with high speed stirrers or bead mills and can be used as a grind vehicle with the addition of low levels of pigment dispersant. E.g. Dispex® Ultra FA 4416 or the pre-thinned form of Lutensit® A-EP is recommended. The pH should be above 8.5. The dispersion is readily compatible with most anti-corrosion pigments, especially those based on modified zinc phosphates.

Storage

This product has to be stored in tightly sealed original packaging at temperatures above 0°C. This product must be protected from frost for a long time.

For further detailed application information please contact our Technical Support Department.

Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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