Acronal® PRO 763

General	Acronal® PRO 763 is a silane-modified acrylic emulsion polymer for industrial metal coatings.
Key features & benefits	excellent corrosion resistance and humidity resistance good adhesion to various metals good early water resistance high pigment compatibility
Chemical nature	silane-modified acrylic dispersion

Properties

Appearance milky white liquid

Typical characteristics
(should not be interpreted as specifications)

Solids by weight	50%
viscosity at 25 °C (Brookfield)	100~250 mPa·s
density at 25 °C	1.05 g/mL
pH value	7~8
MFFT	28°C
freeze/thaw stable	Not stable

Application

Acronal® PRO 763 is an excellent vehicle for general and industrial coatings especially when corrosion protection is required.

Acronal® PRO 763 can be used to formulate waterborne direct to metal (DTM) paints and anticorrosive primers.

Performance

Due to its silane modification Acronal® PRO 763 shows good adhesion to metal and mineral substrates. The silane moieties yield to crosslinking already at room temperature, leading to improved properties as compared to merely physical drying dispersions.

Acronal® PRO 763 shows very good anti-corrosive properties both in DTM and primer application. Please note that this particular dispersion works also as a DTM clearcoat: applied on cold rolled steel it may achieve 240 hours of salt spray resistance at a dry film thickness of approximately 50 µm.

Formulation guidelines

Coalescent

To achieve good film formation, it is necessary to have sufficient coalesent present after most of the water has evaporated. Acronal® PRO 763 has been shown to form a good film at room temperature when levels of approx. 3%~6% coalescent on Acronal® PRO 763 are used. Typical coalescents may be used, in particular butyl glycol and butyl diglycol showed good results for direct to metal paints. For higher filled primers we recommend a combination of butyl glycol with Solvenon® PnB (1:1).

For anti-corrosive paint the adhesion and early water resistance may be further improved by the addition of a plasticizer.

Foam Control

Typical defoamers for waterborne industrial paint may be used. We found good properties with FoamStar® SI 2210. Typical dosage levels are app. 0.2 % of delivery form on total formulation for pigment grinding.

Rheology Control

For the application of Acronal® PRO 763 in anti-corrosive paint especially on uncoated metal it is recommended to use urethane thickeners (HEUR), e.g. Rheovis® PU 1291.

Pigment dispersion

Acronal® PRO 763 is shear stable and can be used as a grind vehicle with the addition of low levels of pigment dispersant. For direct to metal paint Dispex® Ultra PA 4580 was found to show superior performance as compared to other dispersants. For primers we recommend Hydropalat® WE 3475 neutralized with DMEA.

Flash Rust Inhibition

In order to avoid the formation of flash rust an inhibitor should be used. Acronal® PRO 763 shows good compatibility with most common types on the market, both nitrite and organic.

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
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