

Product Information

Acronal® PA 510 ap

Polymer Dispersion for High Gloss Interior Paint

Acronal® PA 510 ap is an anionic dispersion of medium viscosity. This dispersion has extremely fine particles that provide excellent thickening response. It contains low level of surfactant that contribute to excellent water resistance. Acronal® PA 510 ap formulated high gloss coating provides high block resistant. Acronal® PA 510 ap has excellent wet adhesion on wood and to any critical substrate especially to aged alkyd.

Chemical Nature:

Polymer Dispersion of acrylic and methacrylic ester

Benefits

- Water based high & semi-gloss formulation
- Excellent block resistance
- Ideal for trim paint

Features

- Good adhesion on different substrates
- Low water absorption
- APEO and formaldehyde free

Properties

Product specification*	Solids content	%	45 ± 1
	pH value	pH	7.5 – 8.5
	Viscosity at 23 °C, RVT 3/100	mPa s	100 – 900
Other properties of dispersions	Minimum film-forming temperature (ISO 2115)	°C	approx. 3
	Density (ISO 2811-1)	g/cm ³	approx. 1.04
	Resistance to frost	°C	≤ 0
	Type of dispersion		anionic

*The aforementioned data shall constitute the agreed contractual quality of the product at the time of passing of risk. The data are controlled at regular intervals as part of our quality assurance program. Neither these data nor the properties of product specimens shall imply any legally binding guarantee of certain properties or of fitness for a specific purpose. No liability of ours can be derived therefrom.

Note
The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

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Applications

Areas of application

Acronal® PA 510 ap is used mainly for the manufacture of low pigmented high gloss interior paint. Acronal® PA 510 ap is also used in emulsion paint with a low sheen to glossy finish. Owing to its good early block resistance, water resistance and excellent wet adhesion, Acronal® PA 510 ap can be used for painting on most difficult substrates especially aged alkyd surfaces.

Processing

It is advisable to disperse the pigments and extenders with wetting and dispersing agents such as Dispex® CX 4320 and water-soluble polyphosphates in an alkaline medium in advance before the polymer dispersion is added. It is only when products with very high viscosity are being mixed in low-speed mixers that Acronal® PA 510 ap should be added together with the wetting and dispersing agents.

Acronal® PA 510 ap has very good compatibility with pigments and fillers.

Various thickeners can be added to emulsion paints in order to adjust their viscosity and workability. Cellulose ethers, polyacrylates, urethane thickeners (such as Rheovis® AS 1125 and Rheovis® PU 1280) and bentonite can be used. The choice of thickener depends on whether the coating is expected to be free-flowing or more thixotropic.

The type and the amount of pigments and fillers can be varied in accordance with the intended use. To meet the required permanent flexibility, a PVC of approx. 30% should not be exceeded for exterior paints. A high gloss paint can be formulated with a PVC of approx. 19%. The choice of suitable pigments, especially the titanium dioxide grade, affects the degree of gloss and the weathering resistance of the coating.

Film forming aids are advantageous for interior coatings for improving the film quality. Glycol ethers such as butyl glycol, butyldiglycol and ethyl diglycol are particularly suitable for this purpose because they are highly effective and in combination with associative thickeners have a beneficial effect on the process.

Acronal® PA 510 ap, like all fine dispersions, has a tendency to foam, the addition of a commercial defoamer in the amounts by the manufacturer is advised.

Acronal® PA 510 ap is protected against attack by microorganisms, preservatives must still be added to the formulated products so as to ensure uniform quality even with prolonged storage. Compatibility and effectiveness must be determined by preliminary trials.

Customers have to carry out their own trials when developing and processing products based on Acronal® PA 510 ap. The compatibility of Acronal® PA 510 ap with other ingredients of formulations, its effect on mixing processes and its adhesion on different substrates etc., are affected by a variety of factors which are too numerous for us to take into account in our own trials. This includes testing its stability by storing it at ca. 50 °C to confirm that its viscosity remains stable.

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Safety

General

The usual precautions for handling chemicals must be observed. These include the measures set out in the guidelines of the organizations responsible for safety at work, in particular, good ventilation and fume extraction at the workplace, care of the skin and the wearing of eye protection.

Safety Data Sheet

When using this product, the information and advice given in our **Safety Data Sheet** should be observed. Due attention should also be given to the **precautions** necessary for handling chemicals.

Labelling

According to all the data at our disposal, Acronal® PA 510 ap does not need to be labeled as a dangerous substance or preparation as defined in the relevant local directives according to their current status.

Storage

Acronal® PA 510 ap must not be allowed to come into contact during storage with metals or alloys that are susceptible to corrosion. During storage it is particularly important to ensure that containers are closed tightly; in storage tanks the air must always be saturated with water vapor. Undue heating must be avoided, as much exposure to frost.

Given adequate tank and storage hygiene Acronal® PA 510 ap can be kept for about nine months at 10-30°C.

To prevent problems with microorganisms we recommend post-stabilizing the product with biocides for storage.

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