

Product Information



Acronal® PA 510

Chemical Nature:

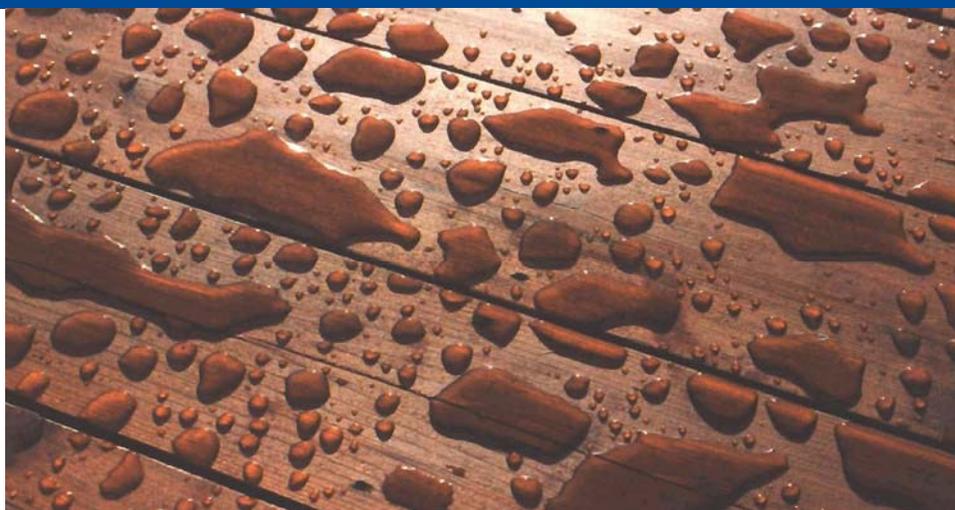
Emulsion of a copolymer of acrylic and methacrylic ester

Benefits

- Very good weathering resistance (also on critical woods)
- Excellent early blocking resistance
- Excellent water whitening resistance

Features

- Good wet adhesion to critical substrates
- Outstanding alkali resistance
- APEO and formaldehyde free



Emulsion polymer for the manufacture of wood paints and stains with early blocking resistance

Acronal® PA 510 is a very fine, anionic dispersion of medium viscosity. This is a multiphase polymer with a special particle morphology. Coatings or wood stain produced with Acronal® PA 510 are therefore highly blocking-resistant and at the same time flexible. Acronal® PA 510 has excellent wet adhesion on wood and to any critical substrate like aged alkyd resin paints

Properties

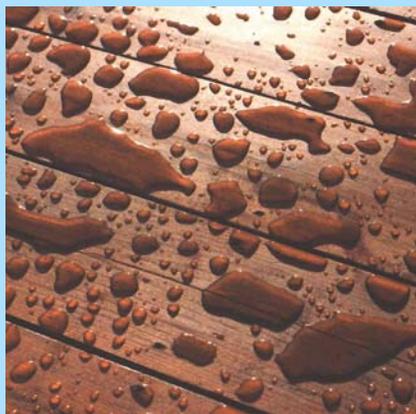
Product specification*	Solids content	%	45 ± 1
	pH value		7.5 – 8.5
	Viscosity at 23 °C, shear rate 100 ⁻¹ (DIN EN ISO 3219 Appendix A)	mPa·s	100 – 400
Other properties of dispersions	Minimum film-forming temperature (ISO 2115)	°C	< 3
	Density (ISO 2811-1)	g/cm ³	approx. 1.03
	Resistance to frost	°C	≤ 0
	Type of emulsion		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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Application

Areas of application

Acronal® PA 510 is used mainly for the manufacture of weather-resistant, low pigmented wood paints and stains. Acronal® PA 510 is also used in emulsion paint with a low sheen to glossy finish. Owing to their good blocking resistance, water resistance and permanent flexibility, coatings based on Acronal® PA 510 can be used for non-dimensionally stable exterior wood substrates (fences, pergolas etc) as well as dimensionally stable exterior wood substrates (window frames, doors).

Processing

It is advisable to disperse the pigments and extenders with wetting and dispersing agents such as Pigment Disperser MD 20 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 should be added together with the wetting and dispersing agents.

Acronal® PA 510 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, diurethane thickeners (such as Latekoll® D ap, Collacral® PU 85 and Collacral® LR 8990) 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.

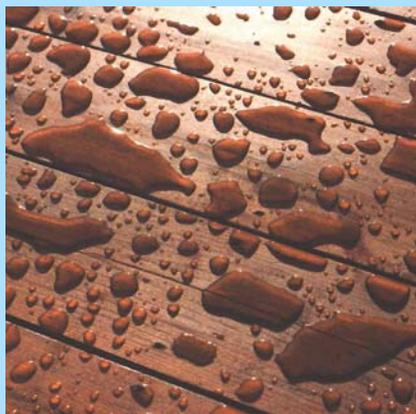
Acronal® PA 510, like all fine dispersions, has a tendency to foam, the addition of a commercial defoamer in the amounts by the manufacturer is advised.

Acronal® PA 510 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.

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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.

Labeling

According to all the data at our disposal, Acronal® PA 510 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 must not come 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 vapour. Undue heating must be avoided, as much exposure to frost.

Given adequate tank and storage hygiene Acronal® PA 510 can be kept for about 6 months at 10-30°C.

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

For further information please contact:

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