Product Information
Acronal® ECO 7090

Aqueous polymer dispersion for the manufacture of scrub and wash resistant architectural paints

Acronal® ECO 7090 is an APEO free anionic polymer dispersion with a low viscosity. It is odorless and contains no ammonia, solvents, or plasticizers. Acronal® ECO 7090 has very high binding power for pigments and extenders therefore making it an excellent binder with excellent scrub resistance even formulated at very high PVC paint.

Chemical Nature:

Polymer dispersion of acrylic ester and styrene

Benefits

- Ability to formulate a wide range of architectural coatings applications
- Excellent web scrub resistance
- Environmentally friendly formulated standard interior paint
- Good efflorescence resistance

Features

- APEO free
- Odorless polymer dispersion
- High pigment binding power
- Good water and alkali resistance

Properties			
Product specification*	Solids content	%	48 ± 1
	pH value	pH	6.0 – 8.0
	Viscosity at 23 °C, RVT Sp2/20 rpm (DIN EN ISO 2555)	mPa·s	100 – 1700
Other properties of dispersions	Minimum film-forming temperature (ISO 2115)	°C	20
	Density (ISO 2811-1)	g/cm³	approx. 1.0
	Resistance to frost	ºC	≤ 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.

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Applications

Areas of application

Acronal® ECO 7090 is ideal for use as interior/exterior emulsion paint with good scrub and water resistance

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 advanced before the emulsion polymer is added. It is only when the products with very high viscosity are being mixed in low-speed mixers that Acronal® ECO 7090 should be added together with the wetting and dispersing agents.

Acronal® ECO 7090 has high pigment binding power and very good compatibility with pigments and extenders.

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

Solvents need to be added in order to enable the polymer to form a uniform film at temperatures below ambient temperature. It is usually sufficient to add these solvents at a level of 2%, expressed as a proportion of the total formulation. Short-chain alcohols and glycols improve the freeze-thaw resistance of paints but they cannot be used to lower the film-forming temperature. If possible, solvents should not be added directly to the polymer dispersion, they should be mixed in the millbase and then added at let down stage.

Like all finely divided polymer dispersion, Acronal® ECO 7090 has a tendency to foam. It is therefore necessary to add a commercial defoamer at the level recommended by the manufacturer. Trials should be carried out to test the effectiveness of the defoamer.

Although Acronal® ECO 7090 itself is resistant to microorganisms in the form in which it is supplied, preservatives need to be added to products formulated with Acronal® ECO 7090 to protect them from attack by microorganisms over long periods in storage. Trials should always be carried out to test the compatibility and efficacy of the preservatives.

Customers have to carry out their own trials when developing and processing products based on Acronal® ECO 7090. The compatibility of Acronal® ECO 7090 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 organisations 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® ECO 7090** does not need to be labelled as a dangerous substance or preparation as defined in the relevant local directives according to their current status.

Storage

Acronal® ECO 7070 must not be allowed to come into contact with metals or alloys that are susceptible to corrosion. It is very important to ensure that containers are kept tightly closed or that the airspace in storage tanks is kept saturated with water vapor. Exposure to frost or sources of intense heat must be avoided.

Acronal® ECO 7069 has a shelf life of approximately nine months from date of manufacture at temperatures between 10°C to 30°C, provided due attention is aid to the hygiene of tanks and storage facilities.

We would recommend treating this product with a biocide in order to prevent problems with microorganisms from occurring during storage and processing. Further details are given in our leaflet on “The handling and storage of polymer dispersions”

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