# **Product Information**

# We create chemistry

# Acronal<sup>®</sup> 7079

# Chemical Nature:

Emulsion polymer of acrylic esters

# **Benefits**

- Excellent weathering resistance
- Balance of flexibility and dirt pick-up resistance
- One binder for both topcoat and mid-coat
- Broad formulation latitude

## **Features**

- Systematic UV crosslinking
- Optimum balance of elongation and tensile strength
- Good water resistance
- Good water vapour permeability
- APEO free



# Emulsion polymer for elastomeric wall coatings designed for tropical climate

Acronal<sup>®</sup> 7079 is a finely divided emulsion polymer designed for elastomeric wall coatings in warm and polluted environments, where high dirt pick-up resistance is essential. It has good compatibility with pigments and extenders. With optimum polymer composition and structure, films formed by Acronal<sup>®</sup> 7079 have adequate elongation while offering high tensile strength.

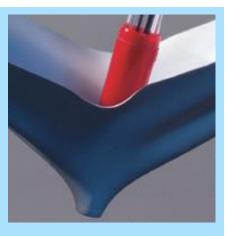
Properties			
Product specification*	Solids content	%	49 ± 1
	pH value		8.5 – 9.5
	Viscosity at 23 °C, RVT Sp2/20 rpm (DIN EN ISO 2555)	mPa∙s	200 – 2000
Other properties of dispersions	Minimum film-forming temperature (ISO 2115)	°C	approx. 7
	Density	g/cm <sup>3</sup>	approx. 1.04
	Resistance to frost	°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.

# Acronal<sup>®</sup> 7079



## Application

#### Areas of application

Acronal<sup>®</sup> 7079 particularly suitable for high quality elastomeric exterior coatings. It can also be used for flexible texture wall coatings.

#### Processing

It is advisable to disperse the pigments and extenders with wetting and dispersing agents such as Dispex<sup>®</sup> AA 4040 and water-soluble polyphosphates in an alkaline medium in advance before adding the emulsion polymer. It is only when the products with high viscosity are being mixed in low-speed mixers that Acronal<sup>®</sup> 7079 should be added.

Acronal<sup>®</sup> 7079 has high pigment binding power, and 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 Rheovis<sup>®</sup> 1125, Rheovis<sup>®</sup> PU 1214 and Rheovis<sup>®</sup> PE 1331) 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 (e.g. white spirit, glycol ethers and their acetates, or Loxanol<sup>®</sup> CA 5308). It is usually sufficient to add these solvents at a level of 1-3 %, 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 direct to the emulsion polymer, they should be mixed with the pigment paste and then added.

Like all finely divided emulsion polymers, Acronal<sup>®</sup> 7079 has a tendency to foam. Presence of micro-foam has significant adverse effect on the mechanical properties of the film such as elongation and tensile strength. It is therefore necessary to add a commercial defoamer (such as Foamstar<sup>®</sup> ST 2434 and Foamaster<sup>®</sup> MO 2111) at the level of 0.3 - 1%. Trials should be carried out to test the effectiveness of the defoamer.

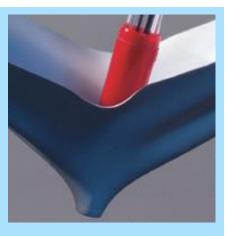
Although Acronal<sup>®</sup> 7079 itself is resistant to microorganisms in the form in which it is supplied, preservatives need to be added to products formulated with Acronal<sup>®</sup> 7079 to protect them from attack by microorganisms over long periods in storage. Trials should always be carried 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<sup>®</sup> 7079. The compatibility of Acronal<sup>®</sup> 7079 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.

#### Labeling

According to all the data at our disposal, Acronal<sup>®</sup> 7079 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<sup>®</sup> 7079 must not be allowed to come into contact during storage with metals or alloys that are susceptible to corrosion. It is important to ensure that containers are kept tightly sealed, and the headspace of bulk storage tanks must be kept saturated with water vapor. This product must not be exposed to high temperatures, and it must be protected from frost. The product should not be exposed to direct sunlight for long periods of time.

Acronal<sup>®</sup> 7079 has a shelf life of Nine months at 10 - 30 °C, provided due attention is paid to the hygiene of tanks and storage facilities.

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

#### For further information please contact:

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