



# Product Information

## Acronal® 7645

### Polymer dispersion for high PVC all purpose paints with excellent scrub resistance

Acronal® 7645 is an APEO free anionic polymer dispersion with a low viscosity. It consists of small, finely divided particles. Acronal® 7645 has very high binding power for pigments and extenders therefore making it an excellent binder with superior scrub resistance even formulated at very high PVC paint.

#### Chemical Nature:

Polymer dispersion of styrene and acrylic ester

#### Benefits

- Ability to formulate a wide range of architecture coatings applications
- Excellent wet scrub resistance
- Excellent paint properties with lower binder content
- Good efflorescence resistance

#### Features

- APEO free
- Versatile polymer dispersion, easy to formulate
- Good thickener response
- High pigment binding power
- Good water & alkali resistance

#### Properties

Product specification*	Solids content	%	48 ± 1
	pH value	pH	6.0 – 8.0
	Viscosity at 23 °C, RV DV 3/20	mPa s	100 – 1700
Other properties of dispersions	Minimum film-forming temperature (ISO 2115)	°C	26 - 29
	Density (ISO 2811-1)	g/cm <sup>3</sup>	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.

## Applications

### Areas of application

Acronal® 7645 is ideal for use as all purpose dispersion 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 a an alkaline medium in advance before the polymer dispersion is added. It is only when the products with very high viscosity are being mixed in low-speed mixers that Acronal® 7645 should be added together with the wetting and dispersing agents.

Acronal® 7645 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, urethane 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 approx. 10%, expressed as a proportion of the total solid content of polymer dispersion. 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 mill base and then added at let down stage.

Like all finely divided polymer dispersions, Acronal® 7645 has a tendency to foam. It is therefore necessary to add a commercial defoamer at the level of 0.3 – 0.6%. Trials should be carried out to test the effectiveness of the defoamer.

Although Acronal® 7645 itself is resistant to microorganisms in the form in which it is supplied, preservatives need to be added to products formulated with Acronal® 7645 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® 7645. The compatibility of Acronal® 7645 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® 7645 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® 7645 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.

Acronal® 7645 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 microorganisms from occurring during storage and processing.

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## Contact Us

BASF East Asia Regional Headquarters Ltd  
Dispersions & Pigments Asia Pacific  
45<sup>th</sup> Floor, Jardine House, No. 1,  
Connaught Place Central,  
Hong Kong

Phone: +852 2731 0111  
Fax: +852 2731 5670  
E-mail: [Dispersions-Pigments-Asia@basf.com](mailto:Dispersions-Pigments-Asia@basf.com)  
[www.dispersions.asiapacific.basf.com](http://www.dispersions.asiapacific.basf.com)