

STYACRYL V 700

Polymer Emulsion

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Version: 2.1

TDS EU/EN

Characteristics

Styacryl V 700 is colloid-stabilized **Vinyl acetate / Acrylate Ester / VeoVa Copolymer** emulsion with very good balance between hardness and flexibility of the film forming. Medium water resistance, UV protection and high pigmenting power.

General Features

Styacryl V 700 is raw material for the paints and coating industry. Including:

- △ Interior paints, flat to semi-gloss
- △ Exterior paints, flat to semi-gloss
- △ Deep shade paint
- △ Textured coatings
- △ Satin paint
- △ Plasters

Advantage

Styacryl V700 is especially suitable as binder for highly pigmented emulsion paints for interior use. In contrast to normal vinyl acetate-VeoVa-based emulsions, Styacryl V700 has an exceptionally high pigment binding power. The dispersion works also well in the formulation of exterior and mid sheen paints. According to the relatively high glass transition temperature of the polymer, film such paints show an improved block resistance.

Physical Properties

Supply Specification	Method *	Unit	Value
Solids content (130 °C,30min)	ISO 3251	%	50±1
Brookfield viscosity (25 °C,3/20)	ISO 2555	mPa.s	5000 ±1000
pH value	ISO 976		4.0±1

Film Properties

Further Typical Properties	Method *	Unit	Value
Particle size		µm	approx. 0.3
Minimum film forming temperature	ISO 2115	°C	12
Glass transition temperature	ISO 16805	°C	approx. 15
Appearance of the film	Clear and Tack free		

*According to this standard.

Usage

Styacryl V700 dries above 12°C to form a crack-free and flexible film. The usual titanium dioxide and colored pigments as well as fillers and texturing grains must be used for the formulation of paints and resin-bound plasters. In addition to the widespread used polyphosphates, the salts of low molecular weight polyacrylic acids working as a dispersing agent should also be used to achieve further stability. Depending on the pigments and extenders, the required quantity is in the range of 0.1 and 0.4 % active substance relative to the pigment/extender mixture.

Many thickeners are usable to adjust the desired viscosity of the paint and to improve its process ability. The minimum film forming temperature of the dispersion will be reduced by adding sufficient amounts of coalescing agents (and in some cases also plasticizers) which must be done with due care. Water miscible solvents like ethylene glycol improve the frost resistance. A lot of commercially available defoamers can be included in order to prevent excessive foaming in the paints.

Trials should be made to determine the most suitable grades and the correct concentration

Preservation and Storage

The dispersion contains some initial preservatives to prevent attack by microorganisms. In order that the product sufficiently protected against microbial contamination during further storage in opened drums, tanks or other storage facilities a suitable preservative should be added despite our preliminary preservation measures and the tanks and pipe work should be kept adequately clean.

Styacryl V 700 has minimum shelf life of 6 months from the dispatch date, provided the product is at temperatures between 5 °C and 35° C, avoiding frost and direct sunlight. Furthermore, it must be ensured that already opened drums and containers are always tightly closed. For bulk storage, additional conditions like the addition of preservatives or frequent stirring are technically applicable and recommended.

Product Safety and Environmental Protection

The usual protective measures employed during the handling of aqueous polymer emulsions should be observed. Further product safety information can be obtained from our material safety data sheet that is available on request.

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. However, we do not assume any liability whatsoever for the accuracy or completeness of the information herein. It should therefore not be constructed as an expressed or implied warranty of specific properties of the products or the suitability for a particular use. Any existing industrial property rights must be observed. The quality of our products is governed by our General Conditions of Sale. In every case we urge and recommend that purchasers before using any product in full-scale production make their own test to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operating conditions