

STYACRYL S 6100

Polymer Emulsion

1 | Page

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TDS EU/EN

Characteristics

Styacryl S6100 is APEO free aqueous cross-linked copolymer emulsion based on Acrylic (meth) acrylic acid esters and Styrene. Ammonia free.

General Features

Styacryl S6100 is raw material for the paints and coatings industry, including:

- △ Exterior gloss paints
- △ Interior gloss paints
- △ Plasters
- △ Textured coatings
- △ Corrosion protection paints
- △ Lime paints

Advantages

- High pigment volume concentrations, the emulsion offers good outdoor durability.
- Emulsion has a glossy form and crack free film with nice flexibility.
- Normal scratch, block resistance and water resistance.

Physical Properties

Supply Specification	Method *	Unit	Value
Solids content (130 °C , 30min)	ISO 3251	%	49±1
Brookfield viscosity (25 °C,4/20)	ISO 2555	mPa.s	6000 ±4000
pH value	ISO 976		7.0-9.0
Ionic Character	Anionic		

Film Properties

Further Typical Properties	Method *	Unit	Value
Particle size		µm	approx. 0.1
Minimum film forming temperature	ISO 2115	°C	18
Glass transition temperature	ISO 16805	°C	21
Appearance of the film	Medium hard ,flexible, clear and tack free		

*According to this standard.

Usage

The usual titanium dioxide and colored pigments as well as fillers or extenders may be used for the formulation of paints and coatings. Depending on the nature of the pigments and extenders, the required quantity is in range between 0.1 and 0.4 % active substance of dispersing agent relative to the pigment/extender mixture. Many thickeners are usable to adjust the desired viscosity of the paint and to improve its process ability. Very good results achieved by employing cellulose ethers with retarded swelling and medium to high molecular weight. Associative PU or acrylic thickeners can be used alone or in combination. Many commercially available defoamers can be included in order to prevent excessive foaming in the paints. The minimum film forming temperature of the emulsion can be reduced by adding sufficient amounts of coalescing agent. Water miscible solvents like ethylene glycol improve the frost resistance. To ensure adequate storage stability long-term storage trials are recommended at any rate, especially when fillers and colored pigments with a large specific surface area are chosen. Trials must be carried out 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 is also 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 S6100 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. To remove any skins or lumps that could have been formed during longer storage of the dispersion due to its film forming nature a filtration or sieve process is recommendable before further processing. The technical data ascertained by our quality control laboratory at the time of product release may vary according to the storage time and storage conditions and may deviate from the original values.

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 which 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