Polyfam® 735

Technical Data Sheet

Characteristics

Polyfam® 735 is a non-plasticized aqueous dispersion based on styrene and an acrylic acid ester.

Stabilization

Surfactants

Recommended Application Areas

Interior paints, containing solvents or plasticizers
Roof tile coatings
Dispersion silicate systems
Binder for fibrous materials
Filler/putties and leveling grouts
Plasters and textured coatings
External wall insulating systems
Ceramic tile adhesives
Primers
Fiber cement coatings
Masonry paints

Specification

These technical data are determined for each batch before its release by our quality control laboratory.

	Unit	Value	Dev.
Solids content (ISO 3251: 1h; 105 °C)	%	50 ±	1
Viscosity (ISO 2555; Spindle no. 4; 60 rpm; 23 °C) Brookfield-viscometer LVT	mPa.s (cP)	3500 ±	1500
pH value (ISO 976)		8 ±	0.5

Additional Data

These data are solely to describe the product. They are not subject to constant monitoring or part of the specification.

	Unit	Value
Dispersion		
Minimum film forming temperature (MFFT) (ISO 2115)	°C	approx 15
Density (ISO 2811)	g/cm³	approx 1.02
Film *		
Appearance		clear and tack-free
Glass transition temperature Tg (Calculated)	°C	approx 18
Hardness (ISO 1522)	s	53

*Force dried at 60°C for 2hr and at 21°C for 24hr and 53% relative humidity (ISO 3270)

Tested at 23°C and 53% relative humidity (ISO 3270)

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Applications

Polyfam® 735 is a suitable binder for the production of medium and high PVC paints. The dispersion is especially suitable for those applications with high demands regarding water and alkali resistance.

Polyfam® 735 can therefore also be used as single binder in building adhesives, ceramic tile adhesives, fillers or repair compounds. The dispersion is compatible with cement.

Other possible applications of Polyfam® 735 are textured coatings, roof tile coatings, primers and highly pigmented fiber cement coatings.

Processing

Polyfam® 735 dries at temperatures higher than approx. 15 °C to form crack-free films with high resistance against water and alkali and low water uptake.

The minimum film forming temperature of the dispersion will be reduced by adding sufficient amounts of coalescing agents (and in some times also plasticizers) which must be done with due care. Water miscible solvents like ethylene glycol improve the frost resistance.

The usual titanium dioxide and colored pigments, as well as fillers and texturing grains may be used for the formulation of paints and resin-bound plasters. To ensure an adequate storage stability, long term storage trials are recommended at any rate, especially when fillers and coloured pigments with a large specific surface area are chosen. In addition to the widespread used polyphosphates, the salts of low molecular weight polyacrylic acids (e.g. Polyfam® 101) working as dispersing agents, should also be used to achieve further stability. Depending on the pigments and extenders, the required quantity is in the range of 0.3 and 1% active substance relative to the pigment / extender mixture.

Many thickeners are usable to adjust the desired viscosity of the paint and to improve its processability. Very good results are achieved by employing cellulose ethers with retarded swelling and medium to high molecular weight. Acrylic thickeners (eg Polyfam® 103) or associative PU thickeners can be used alone or in combination.

A lot of commercially available defoamers can be included, in order to prevent excessive foaming in the paints. Trials must be carried out to determine the most suitable grades and the correct concentration.

Organic pigments should be tested for their suitability for exterior paints, especially in the case of pasted tones.

Preservation and Storage

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

Prior to use, Polyfam® 735 should be stored for no longer than 6 months at temperatures as constant as possible between 5 and 25 °C and must be protected from frost and direct exposure to sunshine. Furthermore, it must be ensured that already opened drums or containers are always tightly closed.

The technical data ascertained by our quality control laboratory at the time of product release may vary according to the storage conditions and may deviate from the stated limits.

Industry Safety and Environmental Protection

Not a hazardous substance.

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