

Polyfam® PR620

Technical Data Sheet

Characteristics

Polyfam® PR620 is non-plasticized aqueous dispersion based on acrylic acid ester and styrene.

Stabilization

Surfactants

Recommended Application Areas

Flexible cementitious waterproofing slurries
Additive for hydraulic binder systems
Flexible coatings

Adhesives
Crack-bridging systems
Elastomeric wall coatings

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)	%	56 ±	1
Viscosity (ISO 2555; Spindle 4; 60 Rpm; 23 °C) Brookfield-viscometer LVT	mPa.s (cP)	200 ±	50
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		
Particle size	µm	approx. 0.2
Minimum film forming temperature (MFFT) (ISO 2115)	°C	0
Density (ISO 2811)	g/cm ³	approx 1.03
Film *		
Appearance		clear, transparent, tacky
Glass transition temperature Tg (Calculated)	°C	approx -6
Hardness (ISO 1522)	s	8
Dried 1hr at 60°C then 24hr at 23±2°C and 50±5% relative humidity (ISO 3270) Tested at 23±2°C and 50±5% relative humidity (ISO 3270)		

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

Applications

Polyfam® PR620 is a high solids, flexible resin with cement compatibility which is designed to modify hydraulic binders. It has a wide range of uses for flexible waterproofing slurries of sealing and protective surface coatings, high flexibility tile adhesives, additives for hydraulic binder systems and roof coverings. It demonstrates water-tightness and impermeability, as well as good adhesion to old surfaces and also improves freeze-thaw resistance of cement mixtures.

Processing

Polyfam® PR620 dries above 0°C to form an almost clear and crack-free film with good flexibility and water resistance.

The usual titanium dioxide and coloured 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 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.

When formulating highly flexible coatings with a relatively low pigment content, the pigments, fillers and additives can be dispersed directly into Polyfam® PR620 without adding water.

Many thickeners are usable to adjust the desired viscosity of the coating and to improve its processability. Very good results are achieved by employing Tylose® grades of the H and MH series with retarded swelling behavior and medium to high molecular weight, but not for flexible coatings for exterior use, because these thickeners tend to lower the good water resistance of the polymer film. In such cases, acrylic thickeners (e.g. Polyfam® 103) or associative PU thickeners work well alone or in combination.

Silicate systems should exclusively be formulated with Hydroxy ethyl cellulose (Tylose® H grades).

In spite of the low MFFT of Polyfam® PR620, the addition of small amounts of solvents to any flexible coating systems is of advantage to improve the processability. Addition of solvents must be done with due care.

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.

Preservation and Storage

To prevent attack by microorganisms, the preservatives normally used for polymer dispersions, should be added despite our preliminary preservation measures. Checks should be carried out to determine their compatibility and efficacy.

Polyfam® PR620 should not be stored for longer than 6 months before processing. As far as possible, storage should be at a uniform temperature in the region of 5-25 °C. The product should, in principle, be kept away from frost.

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 stated limits.

Industry Safety and Environmental Protection

Not a hazardous substance.

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