

# Polyfam® 707

## Preliminary Technical Data Sheet

### Characteristics

Polyfam® 707 is an aqueous dispersion of a copolymer of butyl acrylate and styrene.

### Stabilization

Surfactants

### Recommended Application Areas

Architectural coatings

Interior paints

Textured coatings

Primers for mineral substrates

Protective coatings for concrete

Grouts

Modified silicate paints

Silicone resin emulsion paints

### Specification

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

	Unit	Value	Dev.
<b>Solids content</b> (ISO 3251: 1h; 105 °C)	%	50 ±	1
<b>Viscosity</b> (ISO 2555; Spindle no. 4; 60 rpm; 23 °C) Brookfield-viscometer LVT	mPa.s (cP)	3500 ±	1500
<b>pH value</b> (ISO 976)		8.0 ±	1.0

### Additional Data

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

	Unit	Value
<b>Dispersion</b>		
<b>Minimum film forming temperature (MFFT)</b> (ISO 2115)	°C	16
<b>Density</b> (ISO 2811)	g/cm <sup>3</sup>	approx 1.02

### Film \*

<b>Appearance</b>	clear, tack-free, glossy and flexible
<b>Hardness, Koenig (ISO 1522)</b>	s 80

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® 707 is an anionic dispersion with a medium viscosity. It consists of small, finely divided particles. Its compatibility with pigments and extenders is excellent, and it has very high binding power for pigments.

Polyfam® 707 is a general purpose binder and is mainly used for the manufacture of architectural finishes, interior paints, textured finishes, primers, plastic paints and grouts.

## Processing

Polyfam® 707 dries at temperatures higher than approx. 16 °C to form clear and glossy films with high flexibility, high resistance to alkali and very low water absorption.

Polyfam® 707 has high pigment binding power, and is compatible with the usual titanium dioxide and coloured pigments as well as fillers except those which are difficult to wet, and calcium sulphate and zinc oxide, which are liable to cause a substantial increase in viscosity.

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. Salts of low molecular weight polyacrylic acids (e.g. Polyfam® 101) work well as dispersing agents, sometimes in combination with suitable wetting agents. The required quantities are between 0.3 and 1% active substance relative to the pigment / extender mixture.

Various thickeners can be added to emulsion paints and textured finishes in order to adjust their viscosity and workability. Cellulose ethers, polyacrylates (such as Polyfam® 103), diurethane thickeners, bentonite and polysaccharides can be used. The choice of thickener depends on whether the coating is expected to be free-flowing or more thixotropic.

The minimum film forming temperature of the dispersion will be reduced by adding sufficient amount of coalescing agents (and in some times also plasticizers) which must be done with due care. Short-chain alcohols and glycols improve the resistance of formulations, but they cannot be used to lower the film-forming temperature. If possible, solvents should not be added direct to the dispersion: they should be mixed with the pigment paste and then added.

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

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.

Prior to use, Polyfam® 707 should be stored for no longer than six months at temperatures as constant as possible between 0 and 40 °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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