

Polyfam PR588B

Preliminary Technical Data Sheet

Characteristics

Polyfam® PR588B is an emulsion of a copolymer of acrylic acid ester and styrene.

Recommended Application Areas

Interior paints
 Exterior paints
 High gloss paints
 Semi-gloss 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)	%	36 ±	1
Viscosity (ISO 2555; Spindle no. 2; 60 rpm; 23 °C) Brookfield-viscometer LVT	mPa.s (cP)	<200	-
pH value (ISO 976)		9.5 ±	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		
Density (ISO 2811)	g/cm ³	approx 1.03

Applications

Polyfam PR588B opaque polymer expands the boundaries of light scattering technology, providing the most efficient dry hiding in interior and exterior coatings. Additionally, this non-film forming synthetic pigment is specially engineered to improve the economics of water-borne coatings while maintaining coating performance.

Like its predecessors, *Polyfam PR588B* opaque polymer is a hollow-sphere polymeric pigment that allows paint manufacturers to reduce the raw material cost of their formulations with no performance penalties. In addition to providing the most efficient dry-hiding properties, *Polyfam PR588B* opaque polymer offers wide range benefits in interior and exterior paint formulations.

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.

Characteristics of the Product

- Significantly increased light scattering efficiency while maintaining pain performance
- Greater cost savings while providing equal hiding
- Wide formulation latitude, from low to high PVC paints
- Excellent opacity contribution due to inherent light scattering
- Increases TiO₂ efficiency by spacing pigment
- Very low binder demand due to spherical shape with low specific area

Processing

Opaque Polymer (OP) can be used under special conditions (pH ~8, shear rate moderate), allowing the formulator to get very high volume solids systems.

The introduction of Opaque Polymer should lead to an optimized ratio between TiO₂ and OP where cost is reduced and performance is maximized. This means it is only reasonable to replace those quantities of TiO₂ which undergo crowding and are scatter inefficiently. Opaque Polymer reduces crowding and improves TiO₂ efficiency. OP is not supposed to replace TiO₂ entirely.

Although Opaque Polymer is not a film building polymer we recommend to calculate the coalescent amount on the basis of total polymer solids (binder + Opaque Polymer).

Mineral spirits, aromatic compounds tend to plasticize the polymer shell, reducing its efficiency. Therefore we recommend to avoid these ingredients when formulating with OP. Contact with concentrated glycols, surfactants and acid materials can cause gelling.

Opaque Polymer should be used in a basic environment pH around 8-9 as acid materials can cause gelling or flocculation.

Formulations with OP tend to be higher in gloss and sheen than those flatted with inorganic extenders. However the desired gloss/sheen level can in general be obtained by rebalancing the extenders in the formulation.

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 PR588B* should be stored for no longer than six months at temperatures as constant as possible between 5 and 35 °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.

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.