

Pioloform[®] BL 16

Technical Data Sheet

Characteristics

Pioloform BL 16 belongs in general to the group of polyvinyl acetals. In more detail, it is a low viscous polyvinyl acetal, which is produced by reacting polyvinyl alcohol with butyraldehyde and acetaldehyde. The properties of Pioloform BL 16 are mainly determined by the presence of acetal, hydroxyl and acetate groups.

Recommended Uses

Binder for printing inks, pigment preparations, pigment chips; Binder for coatings (adhesion promotion/corrosion protection primers).

Form supplied

Fine-grained, free-flowing white powder

Preliminary Specification

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

	Unit	Value
Non volatile content (DIN 53216)	w/w-%	≥ 97.5
Content of polyvinyl alcohol ¹⁾	w/w-%	14 – 18
Content of polyvinyl acetate ²⁾	w/w-%	0 – 4
Dynamic viscosity (DIN 53015) Höppler, 10% solution in Ethanol, at 20 °C ³⁾	mPa.s	24 – 28

¹⁾ Hydroxyl groups in terms of polyvinyl alcohol

²⁾ Acetyl groups in terms of polyvinyl acetate

³⁾ containing 5 % water

Additional Data:

	Unit	Value
Glass Transition Temperature (DSC, ISO 11357-1)	°C	84
Bulk density DIN EN 543 (draft Dec. 1991) (form supplied) / 20 °C	g/l	150 - 300

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

Applications

Pioloform BL 16 exhibits a low viscosity in solution as well as excellent pigment wetting. Preferred solvents are special alcohols such as ethanol, i-propanol, n-butanol or diacetone alcohol. In printing ink applications commonly ethanol is used.

Pioloform BL 16 is also well-soluble in esters, such as e. g. methyl acetate, ethyl acetate and n-butyl acetate.

Due to its good flow properties and excellent pigment wetting, Pioloform BL 16 is well-suited for the production of pigment concentrates and preparations (pigment chips).

The adhesion to organic and inorganic substrates, e. g. based on cellulose acetate, polyethylene, polypropylene, poly-styrene, polyester – eventually surface treated –

and aluminium are good. If necessary, the adhesion properties to difficult substrates, such as e. g. surface-treated OPP-films with homopolymer or ethylen-propylene-copolymer surface layers, can be improved by addition of an adhesion-promoter, e. g. [®]Lupasol WF (BASF).

Pioloform BL 16 is used to manufacture shop and wash primers (1K and 2K primers). The films adhere extremely well to steel, iron, zinc, aluminum and other metals.

To achieve further improvement in anti-corrosion protection as well as adhesion Pioloform BL 16 can be combined with low-molecular weight phenolic, epoxy or urea resins.

The good anchorage of the primer on metal is caused by a binder/pigment/ orthophosphoric acid/ metal complex.

Pioloform BL 16 shows good compatibility with suitable plasticizers and different polymers.

Besides binders for printing inks, Pioloform BL 16 can also be used advantageously for applications where low melt viscosity or an increased solid content along with high wetting affinity to pigments/fillers are required.

Processing

Pioloform BL 16 can be processed and applied by the usual equipment of the printing ink and lacquer industry.

Storage

Pioloform BL 16 can be stored in its original packaging under dry and cool conditions for at least 12 months.

Industrial Safety and Environmental Protection

Not a hazardous substance within the meaning of the current Dangerous Substances Regulations (GefStoffV).

A safety data sheet 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. It should therefore not be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed. The quality of our products is subject to our General Conditions of Sale.

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