

## BYK-W 9012

Universal solvent-free wetting and dispersing additive for inorganic fillers and pigments in thermoset and printing ink formulations.

### Product data

#### Composition

Polymeric phosphoric acid ester

Solvent-free

#### Typical properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Density (20 °C):	1.26 g/cm <sup>3</sup>
Active substance:	100 %
Water content:	0.04 %
Refractive index:	1.466
Acid value:	308.1 mg KOH/g

#### Storage and transportation

Product shelf life in unopened original packaging: 36 months

To be stored and transported at a temperature below 50 °C. Separation or turbidity may occur. In this case warm to 30-40 °C and stir.

#### Special note

BYK-W 9012 is not recommended for use in ambient curing, cobalt-accelerated polyester resins because the curing process may be inhibited.

### Applications

#### Thermosets

##### Special features and benefits

BYK-W 9012 improves the wetting and dispersion of a wide range of inorganic fillers such as aluminum trihydroxide, aluminum oxide, calcium carbonate, etc. The additive helps to reduce the viscosity of the formulation. This optimizes the flow behavior or, with the same flow behavior, allows the proportion of fillers in the system to be increased. The higher proportion of fillers improves other properties such as flame retardancy and thermal conductivity. The use of BYK-W 9012 helps to incorporate the fillers more quickly, easily, and homogeneously in production and to achieve consistent quality. Typical areas of application are casting resins, pultrusion, and SMC/BMC applications.

**Recommended use**

Epoxy resin systems	<input checked="" type="checkbox"/>
Polyurethane resin systems	<input checked="" type="checkbox"/>
Unsaturated polyester resin systems	<input checked="" type="checkbox"/>
Vinylester resin systems	<input checked="" type="checkbox"/>

especially recommended    recommended

**Recommended levels**

0.3-1.5 % additive (as supplied) based on inorganic fillers.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

**Incorporation and processing instructions**

The wetting and dispersing additive should be added to the resin mixture before homogenization and the addition of the filler or pigment.

**Printing inks****Special features and benefits**

The additive defloculates pigments by means of steric stabilization. As a result of the small particle sizes of the defloculated pigments, high levels of gloss can be achieved and the color strength is improved. Transparency and hiding power also increase and viscosity is reduced. In this way, the flow characteristics are also improved and high pigment loading is possible.

**Recommended use**

The additive is recommended for all solvent-borne and solvent-free printing inks to stabilize inorganic pigments, specifically titanium dioxide.

**Recommended levels**

Amount of additive (as supplied) based on:

Inorganic pigments: 2.5-5 %

Titanium dioxide: 1-3 %

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

**Incorporation and processing instructions**

For optimum performance, the additive must be incorporated into the millbase before addition of pigments.



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