

BYK-3933 P

Multifunctional, polyacrylate-based, powdered anti-cratering and leveling additive for clear and pigmented powder coatings. High transparency in non-pigmented systems and increased surface tension in all powder coatings.

Product Data

Composition

Modified polyacrylate, adsorbed on silicon dioxide

Typical Properties

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

Acrylate content:	63 %
Density (68 °F):	10.82 lbs/US gal
Residue after calcining:	32 %
Supplied as:	Powder

Food Contact Legal Status

For the current food contact legal status, please contact our product safety department or visit www.byk.com for further information.

Applications

Powder Coatings

Special Features and Benefits

Unlike standard leveling additives BYK-3933 P has a multifunctional performance profile. Not only does it produce good leveling and prevents craters forming, it also creates a high, perfect transparency with markedly low haze in clear powder coatings. It also increases the surface tension of the coating and thereby enables good wetting and simplifies recoatability. This property is particularly important for powder coatings which are used as base coats or which will be recoated with a liquid coating. The high surface tension also prevents fogging effects which arise as a result of steam or humidity. The versatility of BYK-3933 P's properties is unique. The increase in surface tension in particular can be adjusted by tailoring the dose accordingly. It is also possible to combine this product with other leveling additives in any ratio.

Recommended Use

Recommended for powder coatings based on epoxides, polyester/epoxide, polyester, polyurethane and acrylate.

Recommended Levels

0.5-1.5 % additive (as supplied) based upon total formulation.

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Incorporation and Processing Instructions

The additive is mixed with resin, hardener, pigments and other raw materials in a high-speed mixer and then extruded. Good dispersion of the additive by the extruder promotes gloss and leveling of the powder coating and prevents the formation of craters, fish eyes and seeds.

Special Note

We recommend curing temperatures of 160 °C (320 °F) to 200 °C (392 °F).