BYK-4500

Adhesion promoter for aqueous and solvent-borne systems.

Product data

Composition
Solution of modified alkylene copolymer

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

Density (20 °C):	1.00 g/cm³
Solvent:	2,2,4-trimethyl-1,3-pentane diol-mono isobutyrate
Flash point:	93 °C
Amine value:	28 mg KOH/g
Delivery form:	liquid

Storage and transportation
Product shelf life in unopened original packaging: 36 months
To be stored and transported at a temperature below 50 °C.

Applications

Coatings industry

Special features and benefits
The silicone-free additive is attracted by the coating interfaces and its effectiveness as an adhesion promoter is primarily due to special basic adhesion groups.

In aqueous systems, it improves adhesion, especially wet adhesion, on critical substrates, such as aged coatings, oxidized steel, galvanized steel, and polar plastics, such as ABS and glass-fiber reinforced polyester. Early water resistance is increased as well. Suitable systems are emulsion paints, alkyd emulsions, hybrid systems, and water reducible alkyd resin systems.

In solvent-borne systems (thermoplastic acrylates, epoxy resin ester, melamine resin cross-linking baking systems), adhesion on oxidized and galvanized steel is improved.

Hardness, flexibility, gloss, and yellowing tendencies of the coating are not negatively affected. In some cases, adhesion on subsequent coatings may be improved as well.

The additive is stable even at high baking temperatures (briefly up to 280 °C) and does not cause yellowing.

Recommended use

Architectural coatings	☐
General industrial coatings	☐
Can coatings	☐
Wood and furniture coatings	☐
Marine and protective coatings	☐
Floor coatings	☐

■ Especially recommended ☐ Recommended

Recommended levels

0.5-3.0 % additive (as supplied) based upon total formulation.

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

Incorporation and processing instructions

In solvent-borne systems, the additive is added to the letdown or the finished paint while stirring continuously. In aqueous systems, it is only added after the entire batch of binder and, if applicable, co-solvents in the formulation have been added.

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