

BYK-4500

Adhesion promoter for aqueous and solvent-borne and systems.

Product Data

Composition

Solution of a high molecular weight block copolymer

Typical Properties

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

Amine value:	28 mg KOH/g
Density (20 °C):	1.00 g/ml
Non-volatile matter (20 min., 150 °C):	40%
Solvents:	2,2,4-Trimethyl-1,3-pentanediol-monoisobutyrate
Flash point:	103 °C

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

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	■
Industrial coatings	■
Coil coatings (on galvanized steel)	■
Protective coatings	■
Automotive coatings	■

■ particularly recommended

Recommended Levels

1-3 % additive (as supplied) based upon total formulation.

The levels recommended above are purely for orientation purposes. Optimal dosage levels are determined through series of tests.

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.