

BYK-CATALYST 450

Blocked acid catalyst for aqueous and solvent-borne coating systems. Accelerates the cross-linking of amino resins with hydroxyl group-containing resins. Reduces baking temperature and time.

Product Data

Composition

Solution of an amino salt of p-toluene sulfonic acid

Typical Properties

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

Amine value:	10 mg KOH/g
Acid value:	60 mg KOH/g
Density (20 °C):	1.02 g/ml
Non-volatile matter (10 min., 150 °C):	26.5 %
Solvents:	Methoxypropanol/propylene glycol/water 64/5/3
Flash point:	35 °C

Storage and Transportation

The color of the product can darken with storage. This does not affect the quality and effectiveness of the product.

Applications

Coatings Industry

Special Features and Benefits

BYK-CATALYST 450 accelerates the cross-linking of amino resins with hydroxyl group-containing resins. Low reactive melamine formaldehyde HMMM (hexamethoxymethylmelamine) resins, in particular, need an accelerator to lower the baking temperature or to shorten the baking time. The increase in viscosity of the product is significantly lower during storage compared to that of pure p-toluene sulfonic acid, which extends shelf life by 1.5 to 3 times. With this additive, the baking temperature can be decreased by 10-20 °C in comparison with other blocked p-TSA catalysts (such as those containing morpholine or aminomethyl propanol blocking agents).

Recommended Use

The additive is recommended for automotive refinish coatings, industrial coatings and overprint varnishes.

Recommended Levels

1.5-6 % additive (as supplied) based upon solid resin, depending on the reactivity of the base resin and the content of melamine resin and pigment.

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

Incorporation and Processing Instructions

Add to the let-down or the thinner. The solvent mixture must contain 10-20 % polar solvents such as alcohols, glycol ethers or esters.

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Additive Guide



BYK-Chemie GmbH
P.O. Box 10 02 45
46462 Wesel
Germany
Tel +49 281 670-0
Fax +49 281 65735

info@byk.com
www.byk.com

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