

# BYK-430

Liquid rheology additive for solvent-borne coatings, adhesives, and sealants to improve anti-sagging and anti-settling properties.

## Product Data

### Composition

Solution of a high molecular weight, urea-modified, medium-polarity polyamide

### Typical Properties

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

Density (68 °F): 7.18 lbs/US gal  
Refractive index (68 °F): 1.43  
Non-volatile matter: 30 %  
Solvents: Isobutanol/solvent naphtha 9/1  
Flash point: 81 °F

### Food Contact Legal Status

For the current food contact legal status, please contact our product safety department or visit [www.byk.com](http://www.byk.com) for further information.

### Storage and Transportation

Separation or turbidity may occur during storage or transportation at temperatures below 10 °C (50 °F). Its effectiveness is not influenced if it is incorporated under dispersion conditions at a temperature of at least 50 °C (122 °F).

## Applications

### Coatings, Adhesives and Sealants

#### Special Features and Benefits

With the aid of the pigments and fillers, the additive generates a three-dimensional network structure. The entanglement of the high molecular weight polymers is responsible for the development of the pseudoplastic flow behavior. The polarity of the system and the incorporation temperature influence the rheological effectiveness. The settling of the pigments and fillers is prevented and outstanding anti-sagging properties are produced due to the rapid rebound in viscosity after shearing. The additive has no "false body effect", no negative influence on the intercoat adhesion, and it is easy to process on account of its liquid form.

**Recommended Levels**

0.1-1.5 % additive (as supplied) based on the total formulation to improve anti-settling properties and 1-3 % to increase stability.

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

**Incorporation and Processing Instructions**

Optimum results are achieved if BYK-430 is incorporated in the millbase while dispersing the pigments/fillers. The typical increase in temperature to 40-50 °C (104-122 °F) during this phase has a favorable effect; increased temperatures have no negative effect.

Subsequent incorporation (post-addition) under normal stirring conditions at a low shear rate is also possible, however, only if the binder system has suitable polarity and the additive is not subjected to temperatures below 10 °C (50 °F) at any time. If this temperature is not reached, we only recommend incorporation in the millbase of the pigmented/filled systems at a millbase temperature of at least 50 °C (122 °F).

**Special Note**

The interaction with pigments and fillers can lead to a viscosity increase and a gloss reduction. This effect can be avoided by ensuring optimum stabilization of the solid particles with the use of wetting and dispersing additives.



**BYK USA Inc.**  
524 South Cherry Street  
P.O. Box 5670  
Wallingford, CT 06492  
USA  
Tel 203 265-2086  
Fax 203 284-9158

**cs.usa@byk.com**  
**www.byk.com**

ANTI-TERRA®, BYK®, BYK®-DYNWET®, BYK®-SILCLEAN®, BYKANOL®, BYKETOL®, BYKJET®, BYKOPLAST®, BYKUMEN®, CARBOBYK®, DISPERBYK®, DISPERPLAST®, LACTIMON®, NANOBYK®, PAPERBYK®, SCONA®, SILBYK®, VISCOBYK®, and Greenability® are registered trademarks of BYK-Chemie. ACTAL®, ADJUST®, ADVITROL®, ASTRABEN®, BENTOLITE®, CLAYTONE®, CLOISITE®, FULACOLOR®, FULCAT®, GARAMITE®, GELWHITE®, LAPONITE®, MINERAL COLLOID®, OPTIBENT®, OPTIFLO®, OPTIGEL®, PURE THIX®, RHEOCIN®, RHEOTIX®, RIC-SYN®, TIXOGEL®, and VISCOSEAL® are registered trademarks of BYK Additives. AQUACER®, AQUAMAT®, AQUATIX®, CERACOL®, CERAFAK®, CERAFLOUR®, CERAMAT®, CERATIX®, HORDAMER®, and MINERPOL® are registered trademarks of BYK-Cera.

The information and data stated herein, although in no way guaranteed, are based upon tests and reports considered to be reliable and are believed to be accurate. No warranty, either expressed or implied, is made or intended. Use by a customer should be based upon their own investigations and appraisals. Any recommendation should not be construed as an invitation to use a material in infringement of patents.  
This issue replaces all previous versions – Printed in the USA