BYK-9076

Solvent-free wetting and dispersing additive for solvent-borne and solvent-free coatings, adhesives, PVC plastisols, ambient curing resin systems, and for the production of color masterbatches for thermoplastics. Particularly recommended for carbon black pigments. Prevents separation and improves the fiber wetting in SMC/BMC formulations.

Product Data

Composition
Alkylammonium salt of a high molecular-weight copolymer

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

Amine value:	44 mg KOH/g
Acid value:	38 mg KOH/g
Density (20 °C):	1.05 g/ml

Food Contact Legal Status
BYK-9076 is suitable for applications that come into contact with food. For the current food contact legal status, please contact our product safety department or visit www.byk.com for further information.

Special Note
BYK-9076 does not contain plasticizers.

Applications

Coatings, adhesives and PVC plastisols

Special Features and Benefits
BYK-9076 deflocculates pigments by means of steric stabilization. It also generates a uniform electrical charge in the pigment particles. The resulting repulsion effect and the steric stabilization prevent any coflocculation which leads to non-floating coloring in pigment blends. As a result of the small particle size of the deflocculated pigments, high levels of gloss can be achieved and the color strength is improved. In addition, the transparency is increased in transparent pigments and the hiding power in opaque pigments. The viscosity is reduced. In this way, the flow characteristics are also improved and a higher pigment load is possible.

Recommended Use
BYK-9076 is suitable for all pigments and is particularly recommended for stabilizing acidic and neutral carbon black pigments. It is used in solvent-borne and solvent-free coatings, adhesives, and PVC plastisols. A key application area is solvent-free pigment concentrates for these applications.

Recommended Levels
Amount of additive (as supplied) based upon pigment:

Titanium dioxides:	1-3 %
Inorganic pigments:	5-10 %
Organic pigments:	10-25 %
Carbon blacks:	15-50 %

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

Incorporation and Processing Instructions
For optimum performance, the additive must be incorporated into the millbase before addition of pigments.

SMC and pultrusion

Special Features and Benefits
BYK-9076 prevents phase separation in all kinds of unsaturated polyesters with differing thermoplastics and is also suitable for formulations with low emissions. It is also recommended for stabilizing organic pigments and, in particular, acidic and neutral carbon blacks as well as for wetting carbon fibers.

Recommended Levels
5-30 % additive (as supplied) based on organic pigments and carbon blacks for pigment stabilization.
0.5-1 % additive (as supplied) based on the fiber content, for wetting carbon fibers.
0.3-1 % additive (as supplied) based on the resin quantity, to prevent phase separation.

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

Incorporation and Processing Instructions
For optimum performance, the additive should be added to the resin mixture before homogenization and before the addition of solids.

Ambient curing resin systems

Special Features and Benefits
BYK-9076 deflocculates pigments by means of steric stabilization. It also generates a uniform electrical charge in the pigment particles. The resulting repulsion effect and the steric stabilization prevent any coflocculation which leads to non-floating coloring in pigment blends. As a result of the small particle size of the deflocculated pigments, high levels of gloss can be achieved and the color strength is improved. In addition, the transparency is increased in transparent pigments and the hiding power in opaque pigments. The viscosity is reduced. In this way, the flow characteristics are also improved and a higher pigment load is possible. BYK-9076 is suitable for all pigments and is particularly recommended for stabilizing acidic carbon black pigments. It can also be used to improve the wetting of carbon fibers. This brings about a greater process reliability.

Recommended Levels
5-30 % additive (as supplied) based on organic pigments and carbon blacks for pigment stabilization.
0.5-1 % additive (as supplied) based on the fiber content, for wetting carbon fibers.

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

Incorporation and Processing Instructions
For optimum performance, the additive should be added to the resin mixture before homogenization and before the addition of solids.

Thermoplastics

Special Features and Benefits
BYK-9076 significantly reduces the viscosity and brings about Newtonian flow characteristics in the millbase. It improves the torque build-up, the throughput, the viscosity (MVR), the filter pressure value (FPV), and the dispersion quality.

Recommended Use
BYK-9076 is recommended for organic pigments and particularly for acidic and neutral carbon black pigments. It is used in thermoplastic compounds and color masterbatches based on PE, PP, ABS, PVC, PET and PA.

Recommended Levels
5-30 % additive (as supplied) based on organic pigments and carbon blacks for pigment stabilization.

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

Incorporation and Processing Instructions
For optimum performance, the additive should be added to the pigments or the plastic prior to, or during compounding.

BYK-9076

Data Sheet
Issue 02/2014

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/additives

ACTAL®, ADJUST®, ADVITROL®, ALUFERSOL®, ANTI-TERRA®, BENTOLITE®, BYK®, BYK®-DYNWET®, BYK®-SILCLEAN®, BYKANOL®, BYKETOL®, BYKJET®, BYKOPLAST®, BYKUMEN®, CARBOBYK®, CLAYTONE®, CLOISITE®, COPISIL®, DISPERBYK®, DISPERPLAST®, FULACOLOR®, FULCAT®, FULGEL®, FULMONT®, GARAMITE®, GELWHITE®, LACTIMON®, LAPONITE®, MINERAL COLLOID®, NANOBYK®, OPTIBENT®, OPTIFLO®, OPTIGEL®, PAPERBYK®, PERMONT®, PURE THIX®, RHEOCIN®, RHEOTIX®, RIC-SYN®, SILBYK®, TIXOGEL®, VISCOBYK®, Y-25®, and Greenability® are registered trademarks of BYK-Chemie.
AQUACER®, AQUAMAT®, AQUATIX®, CERACOL®, CERAFAK®, CERAFLOUR®, CERAMAT®, CERATIX®, HORDAMER®, and MINERPOL® are registered trademarks of BYK-Cera.
SCONA® is a registered trademark of BYK Kometra.
This information is given to the best of our knowledge. Because of the multitude of formulations, production, and application conditions, all the above-mentioned statements have to be adjusted to the circumstances of the processor. No liabilities, including those for patent rights, can be derived from this fact for individual cases.
This issue replaces all previous versions – Printed in Germany