BYK-1640

Polymer-based, VOC- and silicone-free defoamer for aqueous coatings, printing inks, adhesives, paper coatings and construction chemicals. Optimum performance at the lowest dosage. Suitable for applications that come into contact with food.

Product Data

Composition
Defoamer formulation made of polyamide particles and highly branched polymers

VOC-free (< 1500 ppm)
Contains no alkylphenol ethoxylates.

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

Density (68 °F):	8.35 lbs/US gal
Non-volatile matter (60 min., 221 °F):	62 %
Carrier:	Water

Food Contact Legal Status
The additive 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.

Storage and Transportation
To be stored and transported between 0 °C (32 °F) and 50 °C (122 °F). Temperature-sensitive emulsion. If the storage temperature drops below or exceeds the recommended temperature, the product should be checked and, if necessary, re-emulsified at room temperature.

Applications

Coatings Industry

Special Features and Benefits
BYK-1640 is a very versatile defoamer for aqueous systems. The additive is particularly recommended for the production and application of emulsion paints and plasters within a PVC range of 30-85. The additive is free of silicones and mineral oil, and is especially suitable for VOC-free systems. BYK-1640 exhibits optimum performance at the lowest dosage, is stable to acids and alkalis, and can be used in the pH range 3-12. BYK-1640 can be used in aqueous OPVs and internal coatings (pigmented and clear coatings) in the can coatings field. The additive can also be post-added and shows very good compatibility. BYK-1640 has a spontaneous defoaming effect and is also suitable for preventing microfoam. In coil coating systems, BYK-1640 can be used both in the millbase and be post-added.

Recommended Use

Architectural coatings	■
Coil/Can Coatings	■
Protective Coatings	□

■ especially recommended □ recommended

Recommended Levels
0.05-0.5 % additive (as supplied) based on the total formulation.

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

Incorporation and Processing Instructions
The additive can be added at any time during production. Sufficient shear forces must be applied.

Adhesives & Sealants

Special Features and Benefits
BYK-1640 is a highly effective defoamer for all common dispersion adhesives, such as acrylic, polyurethane, and EVA dispersions. It inhibits foaming during both production and application. The product is free of silicones and mineral oil, and is especially recommended for VOC-free systems. It exhibits optimum performance at the lowest dosage, is stable to acids and alkalis, and can be used in the pH range 3-12.

Recommended Levels
0.05-0.5 % additive (as supplied) based on the total formulation.

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

Incorporation and Processing Instructions
The additive can be added at any time during production. Sufficiently high shear forces must be applied.

Paper Coatings

Special Features and Benefits
BYK-1640 is a highly effective defoamer for all common paper coatings. It defoams and simultaneously inhibits the formation of foam, both during production of the coating as well as during its application using various application methods, such as film or size press, blade or curtain coating. The product is free of silicones and mineral oil, and exhibits optimum performance at the lowest dosage. As a result of its approval for use in contact with food, BYK-1640 can also be used in paper coatings which are to come into contact with food.

Recommended Levels
0.05-0.5 % additive (as supplied) based on the total formulation.

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

Incorporation and Processing Instructions
The additive can be added at any time during production. However, the best effects will be achieved if the product is added to the paper coating early on.

Printing Inks

Special Features and Benefits
BYK-1640 is particularly suitable for aqueous printing inks, overprint varnishes, and aqueous, radiation-curable printing systems. As a result of its approval for use in contact with food, BYK-1640 can also be used in printing inks which are to come into contact with food.

Recommended Levels
0.2-1.0 % additive (as supplied) based on the total formulation.

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

Incorporation and Processing Instructions
During incorporation, ensure sufficiently high shear forces are applied.

Construction chemicals

Special Features and Benefits
BYK-1640 is a highly effective defoamer when producing common plasticizers based on lignin and naphthalene sulfonate. The additive is free of silicones and mineral oil and offers an alternative to TIBP/TBP that does not require labeling. BYK-1640 exhibits optimum performance even at a low dosage.

Recommended Levels
0.1-0.3 % additive (as supplied) based on the total formulation.

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

Incorporation and Processing Instructions
The additive can be added at any time during production. Sufficiently high shear forces must be applied.

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Data Sheet
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Additive Guide

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