

AQUACER 531

Wax emulsion on modified PE basis to improve surface properties of aqueous coatings and printing inks. Anti-caking additive for thermoplastics and hot-melt adhesives.

Product Data

Composition

Non-ionic emulsion of a modified polyethylene wax

Typical Properties

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

Non-volatile matter: 45 %
Carrier: Water
Melting point (wax content): 130 °C
Viscosity (23 °C, D=400/s): 125 mPa·s
pH value: 3.5

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.

Storage and Transportation

Temperature sensitive. To be stored and transport between 5 °C and 35 °C. Stir before use.

Applications

Coatings and Printing Inks

Special Features and Benefits

The additive improves the scratch resistance in aqueous coatings; it increases the abrasion resistance in printing inks in particular. Surface slip and block resistance are also improved.

Recommended Use

Architectural coatings	<input type="checkbox"/>
Printing inks and overprint varnishes	<input checked="" type="checkbox"/>

☒ especially recommended ☐ recommended

Recommended Levels

2-5 % additive (as supplied) based upon 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 is preferably incorporated into the coating with a low shear rate at the end of the production process. Stir well before use.

Adhesives

Special Features and Benefits

AQUACER 531 is used as an anti-blocking additive in the manufacture of hot-melt adhesives during underwater pelletizing to obtain free-flowing and non-sticking granulated material. It is directly added to the cooling water and, therefore, is easy to handle and dust-free.

Recommended Levels

0.5-5 % additive (as supplied) based upon amount of water in the cooling circuit.

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 is added directly to the circuit water. If foaming occurs in the circuit water, we recommend defoamers BYK-023 (silicone defoamer) or BYK-016 (silicone-free) at a dosage of 0.05-0.3 %.

Thermoplastics

Special Features and Benefits

Thermoplastic granulated material (TPE, TPU, EVA) tends to compact and cake under pressure and heat. AQUACER 531 is used in the underwater pelletizing of such materials and forms a protective layer covering the granules, thereby generating non-sticking and free-flowing granulated materials. Unlike the commonly performed dusting of the granulate materials with solid release agents (chalk, talc), significantly lower quantities are needed, which, therefore, avoid an impact on the properties of the thermoplastic material. The generation of dust during processing is also eliminated. If foaming occurs in the circuit water during underwater granulation, we recommend defoamers BYK-023 (silicone defoamer) or BYK-016 (silicone-free) at a dosage of 0.05-0.1 %.

Recommended Levels

0.2–5 % additive (as supplied) in the circuit water.

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 is added directly to the circuit water.