

BYK-153

Sodium polyacrylate-based wetting and dispersing additive for pigment stabilization in aqueous emulsion paints and thinner for water-based drilling fluids.

The additive is only available in the North American market.

Product data

Composition

Solution of a sodium salt of an acrylic acid copolymer

Typical properties

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

Density (20 °C): 1.24 g/ml
Non-volatile matter (10 min, 150 °C): 44 %
Solvents: Water

Storage and transportation

The product may solidify below 5 °C. Heat to 20 °C and stir.

Application

Coatings industry

Special features and benefits

BYK-153 stabilizes the pigments and fillers by electrostatic repulsion and is recommended for aqueous emulsion paints. The additive increases gloss, improves leveling, shortens dispersing time and stabilizes the pigment dispersion. BYK-153 can be used as the only dispersing additive in most cases. It can be used for inorganic pigments and fillers.

Recommended levels

Additive dosage as supplied based on pigment:

Inorganic pigments: 1.5–8 %
Titanium dioxide: 1–2 %
Fillers: 0.4–0.8 %

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

For optimum performance, the additive must be incorporated into the mill base prior to addition of pigments and fillers.

Water-based drilling fluids

Special features and benefits

- Meets industry expected performance
- Economical
- Does not require pH adjustments to function
- Quickly reduces high rheological values due to excess drill solids
- Yield point and gel strengths can be reduced without dilution
- Can reduce fluid loss and improve filter cake quality
- Minimized non-productive time (NPT) spent conditioning the drilling fluid

Recommended use

All water-based muds that will be subjected to temperatures below 177 °C.

Recommended levels

0.7–1.4 kg/m³ additive (as supplied) should be adequate for most formulations and drilling conditions.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

BYK-153 can be incorporated directly into the mud system. Minimal agitation is required. Pilot testing prior to use on the rig is highly recommended to avoid over treatment of the mud.



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This issue replaces all previous versions.