BYK-154

Ammonium polyacrylate-based dispersing additive for aqueous emulsion paints, dispersion adhesives and care products and thinner for water-based drilling fluids. It is used to improve colorant acceptance and is frequently combined with DISPERBYK-187.

The additive is not available on the North American market. Instead, use BYK-152 or BYK-156, which only differ with respect to the non-volatile content.

Product data

Composition
Solution of an ammonium salt of an acrylate copolymer

VOC free (< 1500 ppm)

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

Density (20 °C):	1.16 g/ml
Non-volatile matter (10 min, 150 °C):	42 %
Solvents:	Water

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

Applications

Coatings industry

Special features and benefits
BYK-154 stabilizes pigments and fillers by electrostatic repulsion and is recommended for aqueous emulsion paints. The additive increases gloss, reduces viscosity and improves storage stability. Combined with a wetting additive such as DISPERKBYK-187, the colorant acceptance is improved when tinting with universal colorants. BYK-154 does not stabilize foam.

Recommended use

Architectural coatings	■
Protective coatings	■
Industrial coatings	□

■ Especially recommended □ Recommended

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

Inorganic pigments: 2–10 %
Titanium dioxide: 1.5–2 %
Fillers: 0.5–1 %

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 before the addition of pigments.

Special note
In protective coating systems the use of an additional dispersant based on an organic phosphate compound is recommended together with BYK-154 to improve the storage stability.

Adhesives and sealants

Special features and benefits
BYK-154 stabilizes the pigments and fillers by electrostatic repulsion and is recommended for all aqueous emulsion adhesives and sealants.

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

Inorganic pigments: 2–10 %
Titanium dioxide: 1.5–2 %
Fillers: 0.5–1 %

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 before the addition of pigments.

Care products

Special features and benefits
BYK-154 stabilizes abrasives and other insoluble solids by electrostatic repulsion, and is recommended for all aqueous care products that contain solids. The additive lowers viscosity and ensures a good storage stability of the systems.

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

Inorganic pigments: 2–10 %
Titanium dioxide: 1.5–2 %
Fillers: 0.5–1 %

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 should be added before incorporating the solids.

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 NPT (non-productive time) spent conditioning the drilling fluid

Recommended use

All water-based muds that will be subjected to temperatures under 175 °C.

Recommended levels

0.70–1.40 kg/m^3 additions 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-154 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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