

BYK-GO 8720

Low-shear rate rheology modifier for oil and synthetic-based muds.

Product Data

Composition

Solution of an alkyl ammonium salt of polycarboxylic acid.

Typical Properties

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

Appearance: light amber color
Active substance: 55-60 %
Density (20 °C): 0.95 g/ml
Solvents: Propylene glycol
Flash point: 108 °C

Storage and Transportation

Separation or turbidity may occur at temperatures below 10 °C.

Applications

Oil-Based Drilling Fluids

Special Features and Benefits

- Boosts yield point and low-end rheology dramatically; particularly effective in organoclay containing muds
- Allows systems to be fine-tuned without increasing the plastic viscosity of the mud
- Temperature stable to 177 °C (350 °F)
- Provides suspension under low shear conditions
- Boosts the electrical stability of the mud
- Easily pourable compared to conventional fatty acid rheology modifiers

Recommended Use

Any oil-based drilling fluids containing phyllosilicates (organoclays).

Recommended Levels

0.25-2.0 lb/bbl (0.7-5.5 kg/m³) additions should be adequate for most formulations and drilling conditions.

Example Performance in an 11.0 lb/bbl (1.32 g/cm³), 70/30, Mineral Oil-based Mud

| | Initial | | Hot-rolled at 121 °C (250 °F) | |
|----------------------|----------|--------------------------------------------------------|-------------------------------|--------------------------------------------------------|
| | Base Mud | 1.0 lb/bbl (2.85 kg/m ³) BYK-GO 8720 | Base Mud | 1.0 lb/bbl (2.85 kg/m ³) BYK-GO 8720 |
| Plastic Viscosity | 15 | 15 | 16 | 17 |
| Yield Point | 6 | 16 | 5 | 12 |
| 6-rpm | 3.3 | 9.9 | 3.4 | 9.1 |
| Electrical Stability | 354 | 657 | 357 | 660 |

Incorporation and Processing Instructions

BYK-GO 8720 can be incorporated directly into the mud system. Minimal agitation is required. Pilot testing prior to use on the rig is highly recommended to determine the minimum required level for effective treatment.

Concentrated Polymer Slurries

Special Features and Benefits

- Reduces polymer settling
- Systems can be fine-tuned without overall viscosity increases
- Can be post-added to existing slurries with minimal mixing

Recommended Use

Any solvent-borne fluids containing phyllosilicates (organoclays).

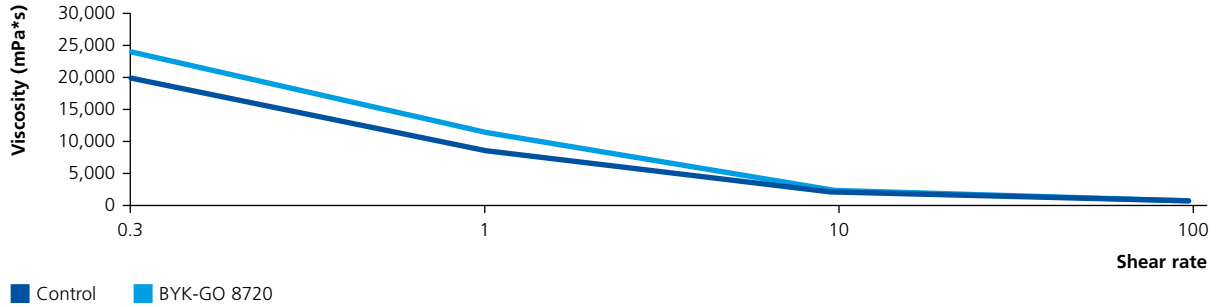
Recommended Levels

0.1-0.5 % by weight (as delivered) additions should be adequate for most liquid gel concentrate formulations.

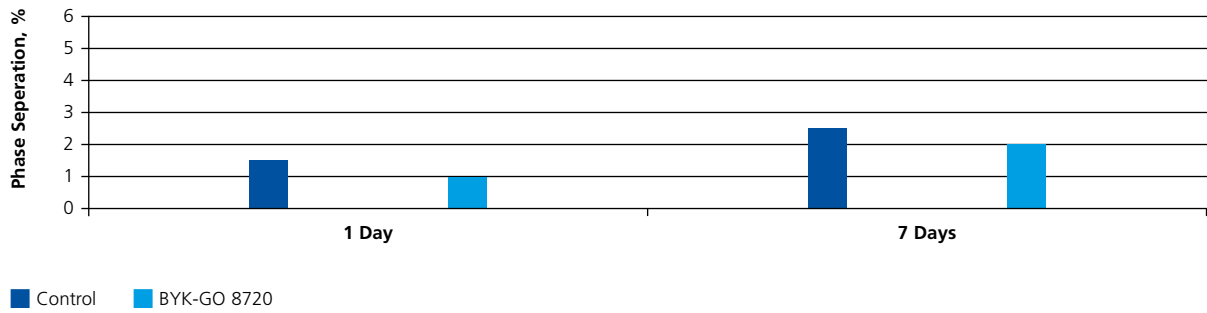
Example Performance in a 4 lb/gallon Guar Slurry

Treating the slurry with only 0.1 % BYK-GO 8720 increases the low shear rate viscosity by nearly 20 % with no impact to the high shear. The concentrated polymer slurry shows improved suspension properties yet is still easy to pump.

Brookfield Viscosity



Phase Separation with 0.1 % BYK-GO 8720



The addition of BYK-GO 8720 aids in boosting phyllosilicate (organoclay) performance without increasing overall viscosity. BYK recommends performing a ladder study to optimize your specific formulation.

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Additive Guide



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