

BENTONE® HC

Hectorite clay for aqueous systems

GENERAL INFORMATION

BENTONE HC rheological additive is a refined hectorite suitable for the thickening and flow control of aqueous systems.

BENTONE HC additive can be used to prepare high concentration dispersions of refined hectorite that develop their full viscosity in the final filled system.

CHEMICAL & PHYSICAL PROPERTIES

Composition	refined hectorite clay
Color / Form	cream free-flowing powder
Density	2.6 g/cm ³
Particle Size	95% < 75 micron

These are typical properties not to be used for specification purposes.

APPLICATIONS

Filled systems such as:

- Building materials, such as mortar cement and gypsum
- Ready-mixed plasters
- Water-borne adhesives
- High PVC coatings
- Household cleaners and polishes
- Crop protection agents
- Ceramic compounds and glazes
- Paint detackification systems

KEY PROPERTIES

- Is a cost-effective thixotropic additive for filled
- Aqueous systems
- Provides shear-thinning viscosity and stable
- Package rheology over a wide temperature range
- Improves slump or sag resistance
- Does not retard drying; has fast water release
- Acts as suspending agent, preventing hard settlement
- Is bacteria- and enzyme-resistant
- Can be used to make concentrated pre-gels of refined hectorite.

INCORPORATION

BENTONE HC additive can be added dry to the formulation along with other mineral components and will develop its gelling ability under highshear dispersion conditions. It is stable within the pH range 6 - 11.

For improved performance and easier incorporation, it is better to prepare a pre-gel at around 10 % solids, preferably in warm water.

High-shear forces are required for 20 - 30 minutes (high-speed disc impeller at 15 - 20 ms⁻¹ typical peripheral speed). The water should be free from salt and surfactants. The pre-gel can then be added to the system as required and is easily incorporated under moderate shear but will only become fully active if it experiences further high shear in the presence of other solid materials (e.g. pigments and fillers).

LEVELS OF USE

The level of addition depends on the desired properties of the system. Typical levels range from 0.3 - 2.0 % **BENTONE HC** additive, based on the total formulation.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

STORAGE RECOMMENDATIONS

Store in a dry place. **BENTONE HC** additive will absorb moisture if stored under high humidity conditions. This, however, will not affect its overall performance.

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SHELF LIFE

BENTONE HC has a shelf life of 4 (four) years from date of manufacture.

QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

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