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**ELEMENTIS**  
SPECIALTIES

# BENTONE<sup>®</sup> HC

thixotropic additive

for aqueous systems

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.

## Applications

Filled systems such as:

Building materials, such as mortar cement and gypsum

Ready-mixed plasters

Water-borne adhesives

Household cleaners and polishes

Crop protection agents

Ceramic compounds and glazes

Unfilled systems such as:

Paint detackification systems

## Key Properties

BENTONE HC rheological additive

- 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

## Chemical and Physical Data

Composition	refined hectorite clay
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Colour/Form	cream free-flowing powder
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Particle size	95 % < 75 micron
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Density	2.60 g/cm <sup>3</sup>
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## **Incorporation**

BENTONE® HC additive can be added dry to the formulation along with other mineral components and will develop its gelling ability under high-shear 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<sup>-1</sup> 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.

## **Safety**

Before using this product please consult our Safety Data Sheet.

## **Storage and Handling**

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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