

BENTONE® DH

Rheological Additive for Waterborne Systems

GENERAL INFORMATION

BENTONE DH additive is a pure hectorite clay based rheological additive that is crystalline silica free and specially designed for low to zero VOC waterborne decorative latex paints.

CHEMICAL & PHYSICAL PROPERTIES

Composition	organically modified hectorite clay
Color / Form	off-white, finely divided soft powder
Specific gravity	2.06
Weight per gallon	17.16 Lbs

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

APPLICATIONS

- Decorative emulsion paints

KEY PROPERTIES

Rheological properties

- Highly efficient low-shear thickener
- Imparts in-can viscosity
- Imparts reproducible thixotropic flow

Application performance

- Prevents hard settlement of pigments/fillers
- Provides superior sag resistance
- Reduces phase separation
- Provides excellent suspension
- Improves storage stability

System stability

- No influence on scrub resistance
- Compatible with synthetic resin dispersions
- Compatible with non-ionic & anionic wetting agents
- Compatible with all other classes of thickeners
- Compatible with coalescents

Ease of use

- Can be incorporated as powder or as an aqueous pre-gel
- Easier to disperse than most clay-based products

INCORPORATION

BENTONE DH additive is very easy to process. No increased temperature is required. It can be used either as a pre-gel or powder. A pre-gel can be prepared as follows by using (Cowles blade high-speed mixers, etc).

- Add **BENTONE DH** gradually, with stirring, to a vessel containing only water.
- Mix at highest practicable speed for 15 minutes.

In this way, 2% to 4% pre-gels can be made. Typically a 3% pre-gel is recommended. This can then be added to the formulation at any convenient stage, including post addition to the complete system. As the **BENTONE DH** disperses easily, high shear forces are not required during post-addition of the gel. If the pre-gel is to be stored, a biocide should be incorporated.

BENTONE DH can also be added as a powder at the start of the mill-base. It should be allowed to wet-out and swell in water before the other ingredients are added.

For highly-filled systems, the pre-gel method with later addition is recommended. This will avoid problems of a too thick or "heavy" mill-base.

LEVELS OF USE

Typical addition levels are 0.1- 0.4% **BENTONE DH** additive by weight of total formulation, depending upon the degree of suspension, the rheological properties or viscosity required. For standard decorative latex paints, 0.2% is a good starting point.

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

Keep product dry. **BENTONE DH** will absorb atmospheric moisture if stored under high humidity conditions.

Store in a cool, dry location.

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SHELF LIFE

BENTONE DH has a shelf life of 18 months 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.

NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.

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