

## BENTONE® 57

### Rheological Additive for High Polarity Organic Systems

#### GENERAL INFORMATION

**BENTONE 57** is an organic derivative of bentonite clay. This highly efficient and cost-effective rheological additive is designed for high-polarity organic systems.

#### CHEMICAL & PHYSICAL PROPERTIES

Composition	modified bentonite clay
Color / Form	very light cream, finely divided powder
Density	1.7 g/cm <sup>3</sup>

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

#### APPLICATIONS

- Industrial paints
- Maintenance coatings
- Foundry paints
- Wash primers
- Adhesives
- Mastic compounds

#### KEY PROPERTIES

- Increases viscosity
- Increases film thickness
- Prevents pigments settling during storage
- Controls sagging on vertical surfaces and
- Paint penetration on porous substrates
- Improves flow and leveling
- Prevents syneresis in thixotropic systems

#### INCORPORATION

##### General

Incorporation of **BENTONE 57** in organic systems (e.g. paints) requires high-shear dispersion equipment.

Two basic incorporation methods can be used:

1. Addition of **BENTONE 57** as a dry powder for in-situ gelation and activation:  
The **BENTONE 57** powder is added directly to the resin/solvent blend and is thoroughly mixed for 5 min. The pigments and fillers are then added and dispersed with high shear for at least 15 minutes.  
If a chemical activator is used (see below), it should be added to the mill-base after the pigment/filler loading.
2. Addition of **BENTONE 57** as a pregel of 5 - 10 % by weight:  
The solvent is charged to the mixing tank. **BENTONE 57** powder is added and dispersed under high shear for 15 minutes. A chemical activator can then be introduced to optimize gelation (see below).  
For incorporation in the full formulation the pregel is added to the resin/solvent mixture with stirring. Pigments and fillers are then incorporated and dispersed under high shear.  
Suitable dispersion equipment  
High speed disc impellers (Cowles Dissolver), pearl-, sand-, ball- and three-roll mills.

#### LEVELS OF USE

The quantity of **BENTONE 57** to use depends on the system in question. Typical levels are between 0.4 % and 2 % dry **BENTONE 57** based on total system weight.

#### 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.

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### STORAGE RECOMMENDATIONS

Store in a cool, dry location.

### SHELF LIFE

**BENTONE 57** 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.

*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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V01 Aug. 2018

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