

## BENGEL® 908

Rheological additive for low to medium polarity solvent based coatings

### GENERAL INFORMATION

**BENGEL 908** rheological additive is a general purpose organoclay designed for low to medium polarity aliphatic and aromatic coating systems. It also works well in other high polarity systems.

It is a highly cost effective rheological additive for low to medium polarity systems.

### PHYSICAL PROPERTIES

Composition	organic derivative of a bentonite
Color	milky white to slight grey
Form	fine powder
Moisture	3.0 % max
Viscosity (Pa·s) - 7 % dispersion in xylene	$\geq 2.5$
Granularity (through 200 mesh)	$\geq 95$
LOI (loss on ignition)	29 - 33
FOG (dispersed in xylene)	$\leq 70$ microns

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

### APPLICATIONS

**BENGEL 908** is designed for low to medium polarity paint systems. It performs well in the following systems

- Interior / Exterior Architectural Coatings
- Industrial Coatings
- Protective / Anticorrosive Coatings
- Wood Coatings primer
- Printing Ink
- Sealant putty
- Unsaturated polyester

**BENGEL 908** provides high transparency and light colour gel, it is highly recommended for transparent paint and will improve anti yellowing property.

### KEY PROPERTIES

**BENGEL 908** Rheological Additive

- Effectively increases low shear and mid shear viscosity
- Offers excellent balance between sag resistance and flow & leveling properties
- Prevents pigment settling during storage
- Controls flooding and floating
- Stabilizes the paint and prevents excessive penetration of the liquid components into porous substrates
- Consistent batch to batch development of rheological properties
- Cost effective

### INCORPORATION

**BENGEL 908** is recommended to be used in grinding phase of a formulation. A typical manufacturing procedure would be as follows:

Under high speed dispersion

1. Vehicle/solvent (mix)
2. **BENGEL 908** (mix 10 minutes)
3. Chemical (polar) activator (mix 5 to 10 minutes)
4. Surfactant (if any in the formulation)
5. Pigment (grind to desired F.O.G.)
6. Let down

#### Chemical (Polar) Activators

Types of Chemical (Polar) Activators	% based on the weight of dry <b>BENGEL 908</b>
Methanol / H <sub>2</sub> O (95 / 5)	33 %
Ethanol / H <sub>2</sub> O (95 / 5)	50 %
Propylene Carbonate / H <sub>2</sub> O (95 / 5)	33 %
DAPRO BEZ 75	30 - 50 %

*continued...*

## BENGEL® 908

A pregel of **BENGEL 908** is recommended to ensure optimum performance especially under optimum conditions of incorporation.

**BENGEL 908** rheological additive can be incorporated into solvent based coatings using either high shear or high speed types of processing equipment. Optimum gelling efficiency is obtained when the proper degree of mechanical, chemical and thermal energy is applied to the system. The processing equipment should provide sufficient amount of mechanical and thermal energy. The required chemical energy is supplied by a chemical (polar) activator.

### LEVELS OF USE

Recommended use level of **BENGEL 908**

The amount of **BENGEL 908** rheological additive required depends upon the type of organic system and the degree of thickening or other rheology properties desired.

Typical **BENGEL 908** use levels are 0.2 % to 2.0 % by weight of the total system. A loading ladder study must be made to determine the optimum level of use.

Effective incorporation technique and equipment will also play a role to optimize the use level.

Optimization is always encouraged to gain maximum cost effectiveness.

### HANDLING 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 cool, dry location

### SHELF LIFE

**BENGEL 908** rheological additive has a shelf life of 4 (four) years from date of manufacture

### QUALITY ASSURANCE

Quality system at the site manufacturing this product complies with and is certified to ISO 9001 quality standards.

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