

LAVIOTHIX® PH50

Rheological additive for water borne system

General information

LAVIOTHIX® PH50 is an organically modified powdered clay additive with high performances and efficiency, specific for water borne formulations that gives great pseudoplastic behaviour and thixotropy.

It **LAVIOTHIX® PH50** is a thickening and antissettling agent, based on a selected, purified and activated white bentonite clay with a high montmorillonite content.

Activity is strictly correlated to its hydration capacity and to give rise to micronic and submicronic particles in dispersion, with a high specific surface; the platelets. These one contribute to create the "body" of the product to be formulated by the formation of an internal tridimensional structure within which different particles and fillers may be incorporated

This elementary particles are responsible of the thixotropic, antissettling, absorbing and binding properties of the product

Chemical- physical properties

Composition	organically modified purified smectite clay
Physical form	white fine powder
Bulk density	0.7-0.8 g/ml
Moisture	9-11%

Applications

- Adhesives
- Emulsion paints

- Bituminous emulsion
- Latex paints
- Ceramics
- Cementitious systems
- Cosmetics
- Crop protection agents
- Foundry paints
- Plaster-type compounds
- Polishes and cleaners
- Textile finishes
- Waxes

Properties

LAVIOTHIX® PH50 is a rheological and thixotropic additive that shows an highly thickener capacity, imparts stability, viscosity control and adhesion control and enhances texturing and stippling effects.

Incorporation

LAVIOTHIX® PH50 is very easy to use . It can be incorporated as powder or as an aqueous 1 - 3 wt % pregel. No increased temperature is required; however, warming the water to above 35°C will accelerate dispersion and hydration rates. Do not allow water temperature to rise above 50° C prior to full hydration. Once hydration has occurred, there is no temperature limitation for **LAVIOTHIX® PH50**.

To obtain maximum hydration and optimum performance in the shortest time, we suggest following incorporation procedures:

1. Slowly add **LAVIOTHIX® PH50** to a vessel containing only water, Increase shear rate to maximum amount which may be tolerated in the mixing container.
2. Continue to disperse until a constant viscosity is reached (15-30 min)
3. Add other formula ingredients in appropriate order

Recommendation

The viscosity of the slurry could rise during time after the preparation, it's better to measure viscosity the day after (Fig. 1).

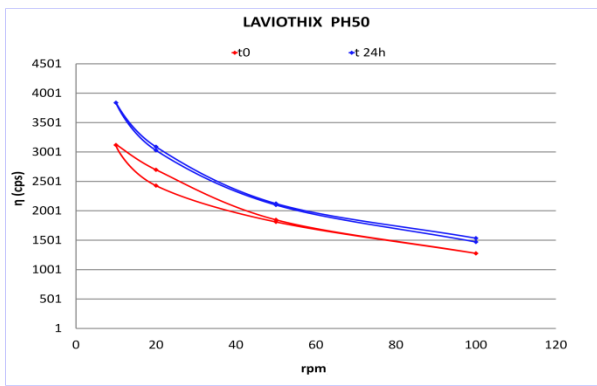


Fig.1 : **LAVIOTHIX® PH50** viscosity at 2% in deionized water immediate reading (red line) and reading to 24h (blue line).

Dosage

Typical addition levels are 0.3% - 1.0% of **LAVIOTHIX® PH50** by weight of total formulation.

The addition levels depend on the degree of suspension, the rheological properties or viscosity required.

Storage stability and packing

Product do not deteriorate in a significant way in a 12 months period.

LAVIOTHIX® PH50 will absorb atmospheric moisture if stored under high humidity conditions. Storage is advisable in a dry, sheltered place in closed bags.

Packing is 25 kg net in paper bags.

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