



LAVIOTHIX®

Rheological additives for water based systems

Characteristics

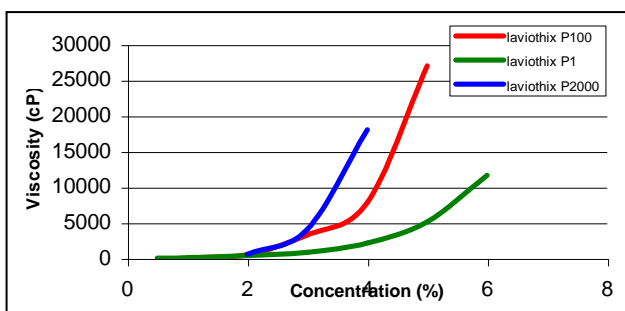
LAVIOTHIX® is a range of rheological additive family suitable for water based systems.

LAVIOTHIX® is both a thickening, thixotropic and antisetling agent, inorganic in origin, based on a selected, purified and activated white bentonite clay with an high montmorillonite content.

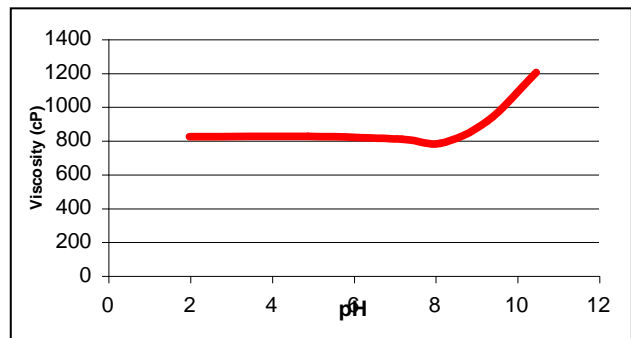
LAVIOTHIX® performance is strictly correlated to its hydration capacity and to the possibility to develop micron and submicron sized particles in dispersion, with an high specific surface area. These elementary particles are responsible of the thixotropic, antisetling, absorbing and binding property of the products.

	Laviothix® P1	Laviothix® P100	Laviothix® P2000
Composition	Clay	Clay	Organically modified clay
Colour	white	white	white
Form	powder	powder	powder
Density (g/ml)	0.7-0.8	0.7-0.8	0.7-0.8

LAVIOTHIX® slurry shows a decreasing viscosity with increasing shear strength but promptly recovers its gel strength once the shear forces are removed. This property is particularly important in those formulations where the product needs to exhibit low resistance to applied mechanical shear forces when in use, but high antisetling and thickening properties at rest.



Graph 1: Viscosity curve of Laviothix®



Graph 2: Correlation between viscosity and pH

LAVIOTHIX® contributes to the creation “body” in the formulation by the formation of an internal three-dimensional structure within which different particles and fillers may be incorporated.

Main chemical features of LAVIOTHIX® are:

- temperature resistance
- resistance to very high pH values.



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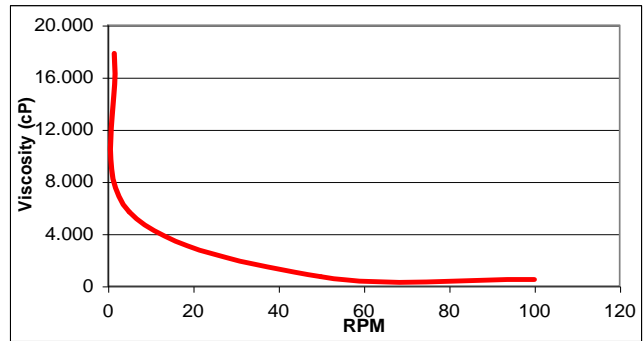


APPLICATIONS

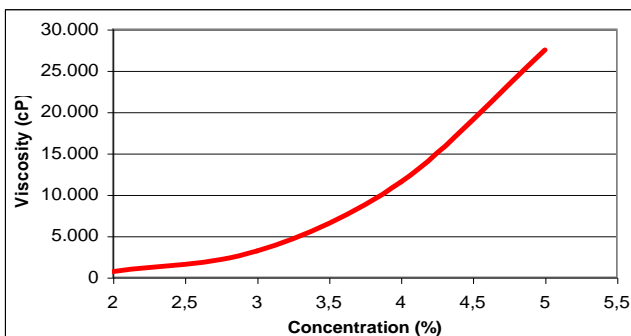
To optimize the rheological properties of LAVIOTHIX[®], care must be exercised when incorporating the product. Slow dispersion in pure water is required, with vigorous stirring, in order to avoid lump formation. Hot water may speed up this operation, but is not strictly necessary. The standard gel formulation includes ammonia solution in order to achieve a pH between 8-9.

The level of LAVIOTHIX[®] needed to achieve good antisetling behaviour, depends on the specific gravity of solids in suspension and the original viscosity of the formulation used.

The average level of LAVIOTHIX[®] required is between 0,25 to 5% based on the total system weight.



Graph 4: Correlation between viscosity and RPM variation in the 4% aqueous suspension for the Laviothix[®] P100



Graph 3: Correlation between viscosity and aqueous concentration of the Laviothix[®] P100

All LAVIOTHIX[®] products develop a pseudoplastic rheology in water based systems. As the shear rate increases, the rheological structure breaks down and the viscosity decreases. When the shear rate is reduced or removed, the structure rebuilds almost immediately and the viscosity remains stable.

All information here in is believed to be accurate but is not warranted. It doesn't represent any assurance of properties and fitness for use of the product. Above mentioned specifications may be changed without any notice.



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