



## MaxxThix® AT-25

Hydrophobically Modified Urethane Associative Thickener

McTron **MaxxThix AT-25** is a non-ionic urethane rheology modifier, designed for formulating a wide range of interior and exterior paints. **MaxxThix AT-25** rheology modifier shows a very good balance of low and high shear viscosity but is dependent on formulations and latex types and allows the formulation of paints meeting a variety of rheological requirements. **MaxxThix AT-25** can be used as a co-thickener in many types of formulations for attaining a desired balance of low and high shear viscosities. It has excellent water and alkali resistance.

**MaxxThix AT-25** rheology modifier is supplied as a pourable and pumpable liquid and should not need dilution. It can be added to the grind or during letdown. Addition to the grind, prior to dispersing, can accelerate the rate of viscosity equilibration. The viscosity of **MaxxThix AT-25** increases at lower temperatures. Therefore, if the product has been stored at low temperature, it should be allowed to equilibrate to room temperature before use in order to facilitate handling.

### TYPICAL PROPERTIES

Appearance	Hazy Liquid
Total Solids, %	25
Weight per Gallon	8.7
Specific Gravity (wet polymer)	1.04
Brookfield Viscosity, cps	1000-2500
Solvent	Water/Butyl Carbitol (75/25)

### PERFORMANCE FEATURES

- Ease of Handling
- Can be used over a wide pH range
- Excellent water and alkali resistance
- Good film former
- Good flow when brushed or rolled
- Microbial resistant

## **Associative Effects in Paint Systems**

The rheology modifying mechanism of **MaxxThix AT-25** is primarily associative. The hydrophobic molecular structure of **MaxxThix AT-25** tends to associate with other hydrophobic elements in the paint or coating. These other hydrophobic elements are mostly latex binder. Association with organic pigments is less frequent, but can exist. In the end, a network of associations form, modifying the rheological profile of the paint/coating and giving it the desired flow. However, associative also means that a whole range of elements other than the thickener itself influences the rheology of the paint. The following factors have a direct impact on the efficiency of **MaxxThix AT-25** in latex

Paints and coatings:

- 1.1. Latex polymer particle size and distribution
- 1.2. Latex polymer composition
- 1.3. Surfactants and co-solvents

## **Latex Polymer Particle Size and Distribution**

The primary site for the associative characteristics of a rheology modifier is the surface of the binder particles. As a consequence, a greater surface area will lead to stronger association. Greater association leads to an increased efficiency. When a binder contains a distribution of particle sizes, the answer is not as clear. Here the distribution of particle sizes from large to small will determine the associative conditions more than average particle size. **MaxxThix AT-25** is most efficient with hydrophobic latexes. This hydrophobicity may vary with the latex composition or the stabilizing system.

## **Let MCTRON Technologies raise your expectations.**

McTron Technologies, LLC Technical Support Team is available to provide assistance with the formulation of all our products to optimally suit your specific needs.

## **McTron Technologies LLC Guarantee**

If any product is defective in workmanship or materials, McTron Technologies, LLC will replace the product, or refund the full purchase price. This warranty is in place of all other warrants, expressed or implied, and all implied warrants of a product for an intended use shall be solely up to the user. McTron Technologies, LLC assumes no liability for consequential damages. Its liability shall in no event exceed the purchase price of materials supplied by it.