

Product Attributes

Model No. : MAS 219

MAS 219 is a kind of [magnesium aluminum silicate thixotropic agent](#). Its appearance is white powder with non-toxic, tasteless and environment-friendly. It has the properties of low viscosity, easy dispersion, excellent suspension and good thixotropy. MAS 219 is made of natural saponite and montmorillonite minerals by several production process such as purification, modification, activation, restoration, gelatinization and nanocrystallization etc.

The main characteristics of MAS 219 are as follows:

- Wide adaptability for various liquid system: it has excellent adaptability to polar media such as water, ethanol and methanol etc.
- Good appearance: the product has high whiteness, good brightness, and wide application range.
- Excellent dispersibility: it can disperse in water or alcohol quickly.
- Excellent suspension property: It can create excellent suspension effect in different suspension systems including solid particles, emulsion, gas and other polar systems such as water and alcohol, and make the system homogeneous and stable.
- High thixotropic value: low viscosity at high shear force, high viscosity at low shear force; the thixotropy index is more than 7 in aqueous systems and more than 4 in other polar systems such as alcohols, which can greatly improve the thixotropy and rheology of various systems.
- Good thickening effect: This product has high viscosity and excellent thickening ability in polar systems such as water and alcohol
- Wide application range: it can widely meet the requirements of suspension, thickening and thixotropy in the range of pH 3 ~ 14
- High Stability: the product is a natural inorganic gel, which has the characteristics of no chemical reaction of the system, and does not create mildew, good stability over the time.
- Excellent synergy: when used together with organic thickener in aqueous system, it can reduce the dosage of organic thickener by 10 ~ 30%. At the same time, it can produce

excellent synergy with organic thickener to better improve the suspension, thixotropy and rheological properties of the system.

Product properties

Particle size (dispersion in water $\leq 10\mu\text{m}$), %	≥ 90
Whiteness, %	≥ 70
Apparent viscosity, mPa•s (5% water dispersion standing for 24h)	≥ 6000
Thixotropic value (5% water dispersion standing for 24h)	≥ 7
PH value (1% water dispersion)	8.5 ~ 10.5
Suspension (2% water dispersion stand for 48 hours)	Uniform and stable
Apparent viscosity, mPa•s (5% ethonal dispersion standing for 24h)	≥ 1500
Thixotropic value (5% ethonal dispersion standing for 24h)	≥ 4
Alcohol swelling index(1), ml/3g	≥ 120
Suspension (3% water dispersion stand for 48 hours)	Uniform and stable
Density, g/cm ³	2.6
Bulk density, g/cm ³	0.5~0.6
Moisture content, %	≤ 10
Wet sieve residue (325 mesh), %	≤ 1

(1) Alcohol swelling index refers to the milliliter of the dispersion after the product is dispersed and swells in ethanol after 3g product being activated by trace water.

Main Chemical Ingredient

Chemical	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	K ₂ O	NaO ₂	CaO	MgO	I.L
Content, %	63±3	19±3	2.0±0.8	0.6±0.4	4±1.5	1.5±0.8	2.8±1.0	≥ 7.0

Negative chemicals Pb<20ppm, As<2ppm

Application of MAS 219

MAS 219 is especially suitable for the following materials in alcohol system, water system and emulsion system.

- Suspension stability: this product has excellent dispersion, suspension and stability characteristics for fine solid particles, emulsion and gas. This product can be used as an excellent suspension material in alcohol based and water-based casting coatings, alcohol based and water based pesticide suspending agents, latex paint, pigment slurry, real stone paint, textured paint, waterproof coating, medicine suspending agent, shampoo, cleaning agent and other waterborne systems.

- Thickener: the viscosity of this product is much higher than other similar market products. It has the characteristics of greatly increasing the viscosity of the system in alcohol-based, water-based and other polar systems, especially in the water-based system, when it cooperates with organic thickener, the thickening effect is remarkable. Therefore, this product can be used as the thickening material of all kinds of alcohol-based and water-based casting coatings, alcohol-based and water-based pesticide suspensions, alcohol-based and water-based coatings.

- Thixotropic additive: This product has the thixotropic characteristics of high shear low viscosity, low shear high viscosity in alcohol based and water-based system. The thixotropic index is more than 7 in water and more than 4 in alcohol. It can be used in all kinds of alcohol-based and water-based casting coatings, alcohol-based and water-based pesticide suspensions, alcohol-based and water-based coatings, pesticide seed coating agents, ceramic blank and glaze, shampoo, toothpaste, shaving cream. It is used as excellent thixotropic material in the fields of detergent and so on.