ITOTONE 923

ORGANOCLAY RHEOLOGICAL ADDITIVE FOR SOLVENT BASED SYSTEM

PROPERTIES

- **Appearance :** Light Yellow Powder
- **Moisture Content (@105°C, 2 hrs) :** < 3.5%
- **Granularity (<76µm or 200mesh) :** > 99%
- **Density :** 1.6 g/cm_3

APPLICATION

- **Solvent Polarity range :** Low, medium and high polarity solvents
- **Dispersion Conditions :** High speed shear with no Polar activator for medium to high polarity solvents. Small addition of polar activator gives better dispersion for low polarity solvents.
- **Addition method :** Pre-gel or dry powder

CHARACTERISTICS

1. Made through special process of modifying
2. Has super dispersing property and high thixotropic property, applicable to low, middle, and high polar solvent systems.
3. Disperses at high-speed shear without polar activator in middle and high polar solvent systems; while in low polar solvent system, adding a small amount of polar activator can reach better dispersing effect.
4. In suitable systems, the fineness dispersion can be less than 5µm and it appears super thixotropic property and anti-flowing property.
5. Can be added at any step
6. According to different solvent systems, polar activator dosage is either 20% to 30% of organoclay or 0% if polar activator is not needed.
7. Dispersion is at high speed or by mill. Usually dosage in paints is 0.2% to 1.5%.
8. It is applicable in epoxy paints, anti-corrosion paints, high temperature lubricating greases, wood paints, high-grade paints and inks, etc.

DISCLAIMER

The information herein offered is based on the best of our knowledge at present. However, we are not able to guarantee these matters, as the result of application may vary according to conditions adopted. Preliminary tests are, therefore, recommended in all cases. Please refer to MSDS regarding handling of the products.

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IMAGINATION INK™

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APPENDIX

Pre gel addition

ITOTONE 100 is made up of lamellar structure polymer. Under shear, solvent penetrates the capillary gap and causes wetting. This leads to lamellar structure polymer de-agglomeration. Addition of high shear or a polar activator under low shear causes the lamellar polymer structure become separated completely and form a gel structure as edge to edge hydrogen bonding occurs making a structure like a house of cards. This is known as pre-gel addition.

Preparation of pre-gel

1. Add 85-87% of solvents or mixed solvents
2. Add ITOTONE series organoclay and disperse at high speed (2500rpm for 5-10 minutes)
3. Add polar activator and disperse at high speed (2500rpm for 15-20 minutes).

Addition of ITOTONE pre-gel

A. For poor wetting resin systems use in combination with surfactant and use the following addition process.

1. Charge resin and solvents and mix.
2. ITOTONE pre-gel mixture and mix.
3. Surfactant.
4. Pigment and disperse
5. Dilute

B. For poor wetting capacity resin and non thixotropic grind material s use the following addition process

1. Charge resin and solvents and mix.
2. Surfactant (if required)
3. Pigment
4. Disperse to the desired fineness with grinding
5. ITOTONE pre-gel
6. Disperse completely to desired fineness
7. Dilute.

Dry powder addition

When a resin has good wetting capacity a special can be used as lamellar structure polymer is separated. The gel structure depends on the surface solvent wetting and shear conditions. Addition as a dry powder is possible directly before the mill process. This type of addition is known as dry powder addition. This method is not recommended for direct post addition to adjust the final viscosity or if a resin does not have good wetting capacity.

A. For good wetting capacity resin and grind material systems

1. Charge resin and solvents and mix
2. ITOTONE organoclay powder and mix for 10 minutes
3. Polar activator and mix for 10 minutes
4. Surfactant
5. Pigment (colour disperse)
6. Dilute

B. For poor wetting resin, addition process is a s follows:

1. Solvents
2. ITOTONE organoclay powder, mix for 10 minute
3. Polar activator mix for 5-10 minute
4. Resin (mix)
5. Surfactant
6. Pigment (disperse)
7. Dilute.

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