ITOTONE 286

ORGANOCLAY RHEOLOGICAL ADDITIVE FOR SOLVENT BASED SYSTEM

PROPERTIES

- **Appearance :** Light (white), Free-flowing Powder
- **Moisture Content (@105°C, 2 hrs) :** < 3.5%
- **Granularity (<76µm or 200mesh) :** > 98%
- **Viscosity (5.5% resin gel, 25°C) :** > 1000mPa•S
- **Fineness Dispersion (no mill) :** < 50µm
- **Loss on Ignition (@800-900°C) :** < 40%
- **Heavy Metal (Pb) :** <15 ppm
- **Heavy Metal (Cd) :** <15 ppm
- **Heavy Metal (Cr) :** <15 ppm
- **Heavy Metal (Hg) :** <15 ppb
- **Arsenic (As) :** < 5mg/kg

APPLICATION

- **Solvent Polarity range :** Benzene. Ester, ketone, ether mixed solvent
- **Dispersion Conditions :** High speed dispersion but no polar activation
- **Addition method :** Dry powder
- **Organoclay addition :** 10% ITOTONE 286
- **Solvent addition :** 90% Xylene or Toluol recommended
- **Activator addition :** None

CHARACTERISTICS

1. Very easy to disperse, strong thickening capability, high transparency.
2. Used in superior paints, printing inks, cosmetics, lubricating greases, composite material, substitution for silicon oxide gas (SiO_2).
3. Similar to Bentone SD-1.

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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APPENDIX

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.

Test Results of Comparison with Organoclay

1 Purpose and Basic Method

Based on red lead powder, alkyd and solvent systems, using ITOTONE 286, Bentone SD-1, ITOTONE 923 and Claytone HY respectively as rheological additives to test thickening, anti-sagging property and basic technical indexes for data comparison.

2 Test Results

Item	Alkyd system Sagging µ	Alkyd system Viscosity mpa·s	10% xylene gel Viscosity pa•s	Dispersion fineness µm
ITOTONE 286	625	50×100	7.6	50
Bentone SD-1	600	45×100	4.7	45
ITOTONE 923	750	3.5	1000	2.8
Claytone HY	625	3.2	750	2.8

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