

# ITOTONE 886

ORGANOCLAY RHEOLOGICAL ADDITIVE FOR SOLVENT BASED SYSTEM



## PROPERTIES

- **Appearance** : White, Free-flowing Powder
- **Moisture Content (@105°C, 2 hrs)** : < 3.5%
- **Granularity (<76µm or 200mesh)** : > 98%
- **Viscosity (7% xylene gel, 25°C)** : > 2.5 Pa•S
- **Viscosity (5.5% resin gel, 25°C)** : > 800 mPa•S
- **Fineness Dispersion (no mill)** : < 60µm
- **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** : Low to middle polarity, Benzene, Ester, ketone, ether mixed solvent
- **Dispersion Conditions** : High speed dispersion and polar activation, 95% ethanol at rate of 30-50% of weight of ITOTONE 886
- **Addition method** : Pre-gel or dry powder
- **Organoclay addition** : 10% ITOTONE 886
- **Solvent addition** : 87% Xylene / n-butanol (4:1) recommended
- **Activator addition** : 3% of either 95% ethanol or 95% methanol

## CHARACTERISTICS

1. The gel is colourless with super dispersability, high transparency, and needs polar activator.
2. Applicable to low and middle polar solvent systems.
3. Used in transparent paints, printing inks, cosmetics, sealants, nanometer composite material.
4. Similar to Bentone-38 and Claytone 40

## 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.

**MAGNACOLOURS**<sup>®</sup>  
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## APPENDIX

### Pre gel addition

ITOTONE 886 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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