CLAYTONE 40

Product Data

Special Features and Benefits
CLAYTONE 40 is an organophilic bentonite derivative which is used as thixotropic thickener and anti-settling agent in solvent based coating systems of low to medium polarity. CLAYTONE 40 is a traditional organoclay requiring the addition of an activator to achieve full efficiency.

As organophilic smectite product, CLAYTONE 40 can swell in organic media and build a gel structure (card-house structure). Weak hydrogen bonding between the single smectite platelets is the reason for this thixotropic gel structure. For optimum efficiency the complete separation of the platelets (complete dispersion of agglomerates into primary particles) is necessary.

Composition
organophilic bentonite

Typical Properties
The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Form:	free flowing powder
Colour:	cream
Specific weight:	approx. 1.8 g/cm^3
Bulk density:	400-600 g/l
Sieve passing (75 µm):	min. 70 %
Moisture content:	max. 3 %

Recommended Use
CLAYTONE 40 is a rheological additive for low to medium polarity solvent-based coating systems. CLAYTONE 40 prevents sagging and settling in resin-based systems. In heavy duty coatings and rust inhibitors based on salts of oxidized petrolatum CLAYTONE 40 can be used.

Further applications: trade sales, wood stains, printing inks, architectural paints, do-it-yourself paints, etc.

Suitable solvents and/or resins: Mineral spirits (rule 66), naphtha, xylene, toluene, mixtures of aliphatic and aromatic solvents. CLAYTONE 40 is not recommended for oxygenated solvent systems (ketones, alcohols etc.). Alkyds, processed oils, epoxy-esters, and oil modified urethanes are all suitable for CLAYTONE 40.

Incorporation and Processing Instructions
Generally organophilic smectite products require high shear forces for complete dispersion and separation of the mineral platelets. It is of advantage to disperse CLAYTONE 40 using high shear forces in the mill base. CLAYTONE 40 can be effectively utilized as powder in the pigment grind. CLAYTONE 40 does require an activator as e. g.

Methanol / H2O (95/5):	30-40 % based on Claytone 40 weight
Ethanol / H2O (95/5):	40-60 % based on Claytone 40 weight
Propylene carbonate / H2O (95/5):	20-30 % based on Claytone 40 weight

Recommended Levels

The optimum amount of CLAYTONE 40 depends on the formulation and on the requirements of the system. Normally around 0.3 % to 1.0 % of CLAYTONE 40 are used to get the required anti-settling, anti-sagging and thixotropy.

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Storage and Transportation

Minimum two years if stored dry in unopened, original packaging at temperatures between 0 °C and 30 °C.

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