

CLAYTONE-PS 3

Powdered rheology additive for solvent-based and solvent-free systems to increase storage duration and sagging resistance.

Product data

Composition

Organophilic phyllosilicate

Typical properties

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

Bulk density: $361 - 454 \text{ kg/m}^3$

Delivery form: powder

Storage and transportation

Product shelf life in unopened original packaging: 60 months

To be stored and transported below 50 °C in the unopened original container.

Applications

Thermosets

Special features and benefits

CLAYTONE-PS 3 is a rheology additive in powder form based on modified phyllosilicates and is mainly used in laminating resins as well in putty compounds based on unsaturated polyester resins. It prevents the settling of fillers. In a combination of CLAYTONE-PS 3 with booster additives, such as RHEOBYK-R 605, the dosage can be lower or the properties can be changed from a pseudoplastic to a thixotropic flow behavior compared with commonly used thixotropes. Thanks to the modification, CLAYTONE-PS 3 exhibits a stable rheology profile even at higher temperatures.

Recommended use

Thermoset resins, mainly unsaturated polyester resin.

Recommended levels

0.2–2 % additive (as supplied) based on the total formulation.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

CLAYTONE-PS 3 can be incorporated directly into the resin. CLAYTONE-PS 3 can be dissolved with a short dispersion time but high shear rate (>9.76 m/s). Fillers can increase the shear and improve the incorporation of the phyllosilicate.

Alternatively, to achieve full effectiveness in UP resins (dosages 0.5–2 %), a pre-gel can be prepared in styrene. For this purpose, 4–6 % CLAYTONE-PS 3 must be incorporated into styrene. At this concentration,

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the mixture can still be pumped, will flow and can be later dosed to the resin easyly. The use of air release additive in such resins is advisable to reduce the quantity of air bubbles.





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