GARAMITE 1958

Rheological Additive for Epoxy, Vinyl Ester and Unsaturated Polyester Resins

Product Data

Special Features and Benefits
GARAMITE 1958 is a unique rheological additive developed for epoxy and vinyl ester systems. GARAMITE 1958 is also recommended for use in unsaturated polyester resins such as Orthophthalic, Isophthalic, DCPD and PET resins. Compared to fumed silica, GARAMITE 1958 provides improved sag (drainage) resistance, rheology control and stability, is more efficient and is easier to handle in manufacturing (less dusty, higher bulk density and not sensitive to shear).

Benefits

· Dispersion Ease
· Viscosity Stability
· Shear Stable
· Syneresis Prevention
· Gel Time Stability
· Settling Prevention
· Drainage/Sag Prevention
· Increased Efficiency

Recommended Levels
Because the recovery properties obtained with GARAMITE 1958 are unique, it is recommended application properties such as sag resistance or spray trials be used instead of viscosity to evaluate the efficiency of GARAMITE 1958. GARAMITE 1958 use levels are system dependent. A loading ladder from equal loading to 20-40 % less than fumed silica should be evaluated. Air release agents such as BYK-A 555 and rheological enhancers such as BYK-R 605 (typically added at 5-10 % based on the weight of GARAMITE 1958) are beneficial in many systems and should be included in the overall optimization evaluation.

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

Color:	Off White
Form:	Fine Powder
Moisture Content:	<6 %
Bulk Density:	ca. 130 g/l
Specific Gravity:	1.5-1.7 kg/l

Incorporation and Processing Instructions

Incorporation procedures will vary based on the system being evaluated.

For epoxy and vinyl ester systems, the recommended incorporation procedure is to add GARAMITE 1958 to the resin under moderate to high shear. The addition of GARAMITE 1958 to the resin at a 1-6 % GARAMITE 1958 loading level may be required to achieve maximum efficiency during dispersion. If a solvent is available in the system, increased efficiency can typically be achieved by using the incorporation methods described below by replacing the styrene with the available solvent.

For unsaturated polyester resins, the recommended method of incorporation for maximum efficiency is to add GARAMITE 1958 directly into the styrene at 10-15 % solids. Styrene wets and disperses GARAMITE 1958 with only low shear agitation.

Methods for direct add to styrene include the following:

1. Meter GARAMITE 1958 into the styrene line prior to the resin tank using an eductor.
2. Mix and/or recirculate GARAMITE 1958and styrene through a recirculation pump or sonolator in the resin tank prior to resin addition.
3. Mix GARAMITE 1958 and styrene in a separate tank.

Direct addition of GARAMITE 1958 into unsaturated polyester resins requires high shear mixing (4000 rpm) for proper dispersion. If you find it necessary to add GARAMITE 1958 directly to the resin, we recommend adding it to the resin at a 1-6 % GARAMITE 1958 loading to achieve maximum efficiency during dispersion.

Storage and Transportation

Two years if stored dry in unopened, original packing at temperatures between 0 °C and 30 °C.

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