



TOTALBOAT SILICA THICKENER

- Thickening agent for unsaturated polyester resin, vinyl ester resin, or epoxy systems
- Adhesive thickener adds strength, abrasion resistance
- Increases the sag resistance and body of liquid resin material
- Works great as a stand-alone thickener, or blended with other fillers or thickeners
- Great for filling gaps or holes
- Helps to prevent liquid resins from being absorbed into porous substrates
- Color: White

TotalBoat Silica Thickener is extremely fine fumed silica. This additive is used primarily with epoxy, vinyl ester, and polyester resin systems to create a smooth, thixotropic, non-sagging, high-strength mixture for structural bonding, filleting, and filling. It can be used alone or blended with other fillers to achieve desired working or cured properties. Silica Thickener imparts a milky white color to the liquid resin, and will cure with a smooth surface.

COMPATIBLE RESIN TYPES: Unsaturated polyester, vinyl ester, epoxy systems, solvent-based coatings*, adhesives/sealants

PERSONAL SAFETY:

Always use proper Personal Protective Equipment when using any TotalBoat product. Refer to the TotalBoat Silica Thickener Safety Data Sheet for more info.

APPLICATION:

- TotalBoat Silica Thickener should be added slowly and mixed in accordance with the resin types below. Stir slowly enough to avoid aerating the silica, getting it everywhere. It may not be absorbed into the resin material immediately, but it will mix in.

- Silica Thickener should be added and mixed in until the resin material achieves the desired viscosity/body for the application. Mix until it is evenly dispersed throughout.
- This can range from a liquid-gel consistency, all the way up to a thixotropic, thick peanut butter consistency where it has excellent sag resistance. The resin material may consume a very large amount of silica to achieve this consistency – this is normal.
- Adding Silica Thickener to any of these resinous materials will add mass, which will shorten the working time and add to the heat generated from the reaction. The silica itself is considered non-reactive and will not have any other positive or negative effect on the cure.
- One trick to prolonging the working time after the silica has been added to the resin is to keep the thickened resin spread as thinly as possible in the mixing cup or spread around the outer edge to allow for the best heat dissipation. If the thickened material starts to generate heat, it will react quickly and start to cure.

• EPOXY APPLICATIONS:

- To promote the best results, mix the resin and hardener components together prior to adding Silica Thickener. This will ensure a proper mix of the epoxy. Work diligently, as the silica needs to be added during the working time of the epoxy.

• POLYESTER OR VINYL ESTER APPLICATIONS:

- Add Silica Thickener to the liquid resin prior to catalyzing. This gives unlimited time to achieve the desired viscosity before catalyzation.
- GELCOAT: TotalBoat Silica Thickener can be added to gelcoat to increase the viscosity (using the same method as for polyester resin materials); however, gelcoat should still only be applied at its specified thickness. Gelcoat is not recommended for gap filling or filling holes.

- OTHER USES: TotalBoat Silica Thickener can be added to solvent-based coatings* or adhesives/sealants to add viscosity. Take extra care not to add excess silica, and ensure that it is completely blended in, leaving no chunks.

* Adding silica may adjust the surface texture or the sheen of coatings, or the cure rates, so always perform a test sample prior to attempting the final project. May not be compatible with some two-component coatings or water-based coatings.



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PRODUCT DATA:

Component Type: Rheology, thixotropy control

Specific Surface Area (BET): 175-225 m²/g

pH Value: 3.7-4.5

Tamped Density: 50 g/L (Approximately)

SiO₂ Content: >99.8%

Unit of Measure: 1-quart, 5-quart containers

Consistency: Very fine, white powder

Storage: Store sealed tightly, under dry conditions.