CAB-O-SIL® TS-720 Fumed Silica

CAB-O-SIL TS-720 fumed silica is a medium surface area fumed silica which has been surface treated with polydimethylsiloxane (PDMS). This surface treatment results in a hydrophobic silica with a very different performance than untreated silica.

**CAB-O-SIL TS-720 Treated Silica**

In comparison to an untreated silica such as CAB-O-SIL M-5 fumed silica and other treated silicas such as CAB-O-SIL TS-610 and CAB-O-SIL TS-530 fumed silicas, CAB-O-SIL TS-720 fumed silica provides very different performance in polar systems. The charts below demonstrate the efficient thickening and shear-thinning rheology provided by CAB-O-SIL TS-720 fumed silica in an epoxy resin. The sag resistance as measured by onset of flow of CAB-O-SIL TS-720 fumed silica exceeds that of CAB-O-SIL M-5 fumed silica and even the other treated silicas tested. After aging at 60°C for 28 days, the epoxy resin containing CAB-O-SIL TS-720 fumed silica maintained sag resistance (onset of flow) unlike the other silicas.
CAB-O-SIL® TS-720 Fumed Silica

Major Applications and Performance Features:

Typical Applications
CAB-O-SIL TS-720 fumed silica is used for rheology control in a wide variety of adhesives, composite and coatings applications:

Epoxy Adhesives and Coatings:
In epoxy adhesives and coatings, CAB-O-SIL TS-720 fumed silica provides good thickening efficiency, sag resistance (or film build) and anti-settling of pigments and fillers. For applications requiring storage stability, CAB-O-SIL TS-720 fumed silica is recommended.

Polyurethane Adhesives and Coatings:
In polyurethane adhesives and coatings, CAB-O-SIL TS-720 fumed silica provides the same efficient, stable rheology control as in epoxy systems. In addition, the hydrophobic surface of CAB-O-SIL TS-720 fumed silica introduces very little moisture into these systems preventing premature cross-linking of moisture cured systems.

Vinyl Ester Laminating Resins and Gel Coats:
While untreated silicas are effective thickeners of unsaturated polyester resins, CAB-O-SIL TS-720 fumed silica is a more efficient, stable rheology control additive for higher polarity systems like vinyl ester laminating resins and gel coats.

Performance Features
CAB-O-SIL TS-720 fumed silica provides the following performance advantages in medium to high polarity systems:
- Thickening efficiency
- Sag resistance or high film build
- Anti-settling of pigments and fillers
- Shear-thinning rheological behavior
- Stable rheological performance over time

Packaging Options:
CAB-O-SIL TS-720 fumed silica is packaged in multi-wall Kraft paper bags and flexible intermediate bulk containers (FIBC’s). It is available in poly-shrouded units containing 18 x 10 lb. paper bags (net weight 180 lbs.) and 18 x 10 kg paper bags (net weight 180 kg) as well as in 150 kg FIBCs.

Material Safety Data Sheet:
A material safety data sheet (MSDS) for this product may be obtained from your local Cabot representative or can be downloaded from cabotcorp.com

Product Sales Specifications:
Sales specifications for this product may be obtained by contacting a sales or technical service representative at the Cabot Corporation office in your region.

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