

Hybrid Plastics®

Superior Technology for Superior Products

SO1458 - TriSilanolPhenyl POSS®

SO1458 is a hybrid molecule with an inorganic silsequioxane at the core, organic phenyl groups attached at the corners of the cage, and three active silanol functionalities. It is a white powder. It is soluble in most polar organic solvents, monomers, and polymers, but is insoluble in non-polar solvents. SO1458 can be used as a processing aid in thermoplastics and thermosets while still retaining mechanical properties, for surface modification, or as an epoxy or BMI cure promoter.

PHYSICAL PROPERTIES

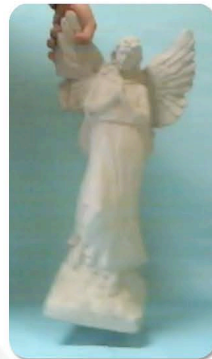
Molecular/Chemical Formula:	$C_{42}H_{38}O_{12}Si_7$
Molecular Weight:	931
Appearance:	white powder
Density:	1.42 g/mL
Refractive index:	1.65
Thermal Stability (5% weight loss):	366°C
Solvent Solubility:	THF, chloroform, ethanol
Solvent Insolubility:	hexane
Resin Solubility:	most aromatic and aliphatic monomers, oligomers, and polymers (PP, PE, PA, PC, PET)

AVAILABILITY

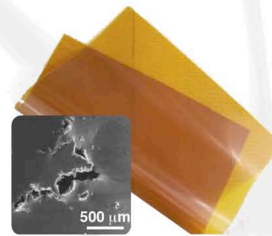
SO1458, and its lithium salt counterpart - SO1457, are available in R&D and bulk quantities. Contact us at info@hybridplastics.com for a quote.

WARRANTY

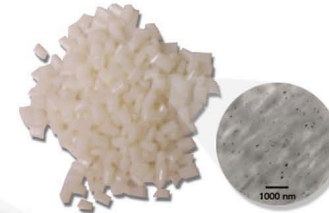
The information contained herein is believed to be accurate and reliable. However, the user is responsible for determining the suitability and use of the final formulations/products. Hybrid Plastics® warrants that its products will meet specifications, but not merchantability or fitness for use.



Monument Restoration - ACS Appl. Mater. Interfaces, 2009, 1 (2), 393.



Nanoreinforced® Polyimide - www.hybridplastics.com



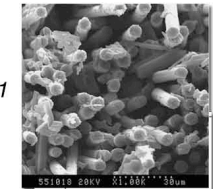
Improved Filler Dispersion - J. Appl. Poly. Sci., 2008, 108, 2503.



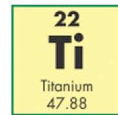
Lead Free Solder - J. Elec. Mat., 2005, 34 (11), 1399.



Photoconductors - US Pat. No: 2008/0014517 A1



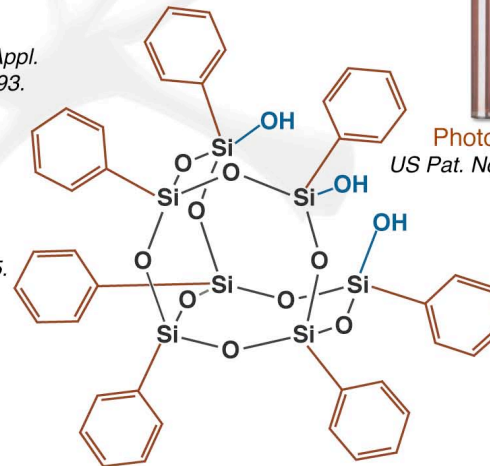
Carbon Fiber Composites - Compo. Sci. & Tech., 67 (2007) 3014



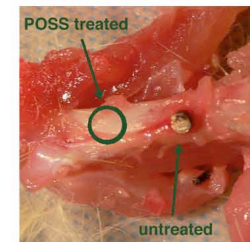
Epoxidation Catalyst - Chem. Eur. J., 2000, 6 (1), 25.



Wound Healing - US Pat. No: 7,572,872 B2



SO1458 is an important component in many new materials and products.



Osteoinductive Bone Graft - US Pat. No: 2009/0087473 A1