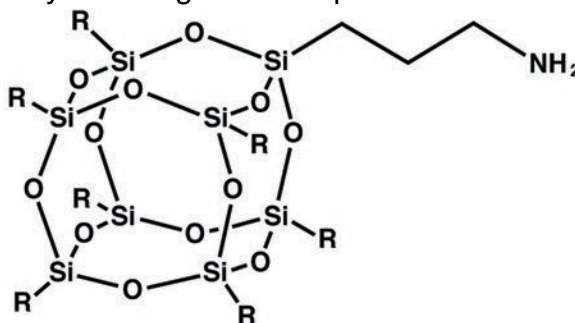


Aminopropylisobutyl POSS<sup>®</sup>

AM0265

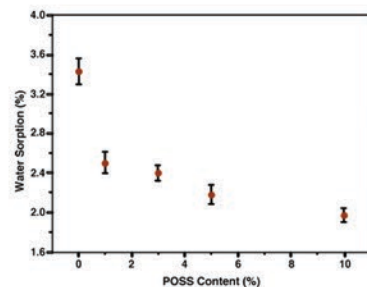
AM0265 is a hybrid molecule with an inorganic silsesquioxane at the core, organic isobutyl groups attached to seven corners of the cage and an aminopropyl group attached to the eighth. It has been used to increase spacing between chains in polyimides to reduce color. It is also effective at improving weather-ability of polymers and coatings by reducing water sorption.

R = *i*-butylC<sub>31</sub>H<sub>71</sub>NSi<sub>8</sub>O<sub>12</sub>

FW 874.58

D<sub>4</sub><sup>20</sup> 1.16    n<sub>D</sub><sup>20</sup> 1.49

Refrigerate

**Key Properties****Appearance:** white powder**Thermal Stability (5% wt loss):** 221°C**Solvent Solubility:** THF, chloroform, hexane**Solvent Insolubility:** acetonitrile, methanol**Resin Solubility:** aliphatic resins, aliphatic and aromatic amines

Effect of AM0265 loading on water sorption in Bis-GMA

**Relevant Literature**

- Chemical Modification of Fluorinated Polyimides - *Macromolecules*, Vol. 39, No. 14, 2006
- Polyimide Polymer with Oligomeric Silsesquioxane - *US Pat 7,619,042*
- Vapor phase grafting - *J. Mater. Chem.*, 2011,21, 18049-18054
- Reduced water sorption in methacrylates - *JAPS*, Vol. 124, 3334–3340 (2012)

CAS 444315-15-5

Authorizations: None

\$125/100g    \$350/500g    \$550/kg