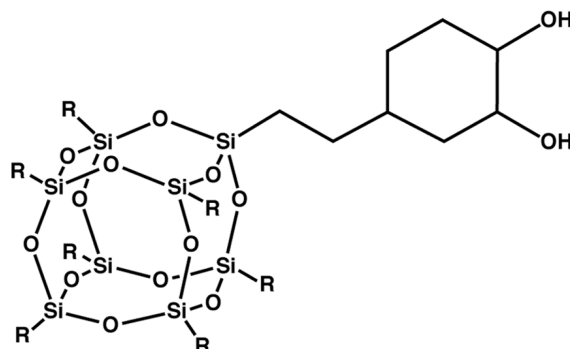


trans-Cyclohexanediol*isobutyl* POSS®

AL0125

AL0125 is a hybrid molecule with an inorganic silsesquioxane at the core, organic *isobutyl* groups attached at seven corners of the cage and a *trans*-cyclohexane diol group on the eighth corner. It is very useful as a monomer in condensation polymerization chemistry to increase strength, toughness, and the HDT by limiting chain motion.



R = *i*-butyl

$C_{36}H_{78}O_{14}Si_8$

FW 959.68

Key Properties

Appearance: white powder

Thermal Stability (5% wt loss): 255°C

Solvent Solubility: THF, chloroform, acetone,
hexane

Solvent Insolubility: acetonitrile

Resin Solubility: polyethers and polyalcohols

Relevant Literature

- Shape Memory Polymers Based on Semicrystalline Thermoplastic Polyurethanes Bearing Nanostructured Hard Segments - *World Patent #2006/115799*
- Structural and electrochemical properties of polyurethanes/polyhedral oligomeric silsesquioxanes (PU/POSS) hybrid coatings on aluminum alloy - *Materials Chemistry and Physics* 117 (2009) 91–98

CAS 408439-48-3 Authorizations: None

\$480/100g \$2700/kg

www.hybridplastics.com

HYBRID PLASTICS

ALCOHOLS