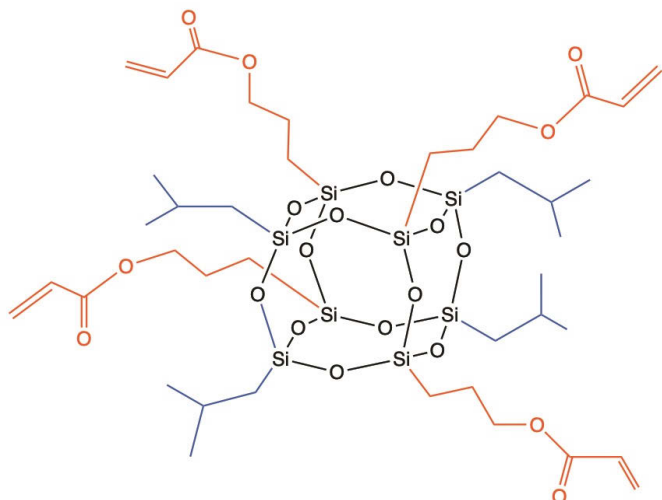


Acrylic i-Butyl POSS[®]



APPLICATIONS

Surface energy control, hydrophobic wetting, and moisture barrier. Additional dispersion and plasticization can be realized in certain formulations.

TYPICAL PROPERTIES

Appearance	Clear, Slightly Viscous Liquid
Viscosity @ 25°C	1.50-1.75 Pa s
Refractive Index	1.4650 @ 21 °C
Molecular Weight (octamer)	1097.68 g/mol
Equivalent Weight	274
Solvent Solubility	Ethers, Acetates, Hexanes
Solvent Insolubility	Water, Methanol

REGULATORY STATUS

R&D use only at this time.

HANDLING PRECAUTIONS

Product safety information required for safe use is not included in this document. Before handling, read product and material safety data sheets and container labels for safe useage, physical health, and hazard information. For material safety data information, please contact HYBRID.



BENEFITS

Free radical and addition cure. The combination of reactivity and hydrophobicity provides for interfacial compatibility and dispersion. The crosslinking capability in combination with i-Butyl provides for resistance to moisture uptake and water repellency while retaining optical transmission.

DESCRIPTION

Acrylic i-Butyl POSS[®] is a hybrid molecule with an inorganic silsesquioxane core and organic reactive groups attached at the corners of the cage. Acrylic i-Butyl POSS[®] is a molecular union of both chemistry and organic-inorganic compositions.

COMPATIBILITY

Acrylic i-Butyl POSS[®] is intended to be utilized as an additive. At low additive concentrations, compatibility is expected with a wide range of resins and monomers bearing similar chemical functionality.

Compatibility testing is recommended for higher concentrations. Additional information and screening may be provided by HYBRID upon request.

ADDITIONAL DETAILS

Acrylic i-Butyl POSS[®] is a mixture of cage sizes 8, 10, and 12. The organic groups are distributed randomly around each cage core. The ratio of i-Butyl and Acrylic groups is an approximate 1:1 molar ratio.

** Additional ratios are available upon request.*

The distribution of cage size and functionality around the cage core is analogous to that for functional polymers.

Heteroleptic cage POSS are represented by the catalog designation HC. The structure shown is idealized and should not be considered exact.



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