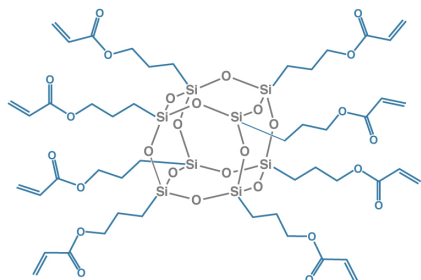


POSS® Nanosilica Dispersion

APPEARANCE

Clear, colorless viscous liquid.



APPLICATIONS

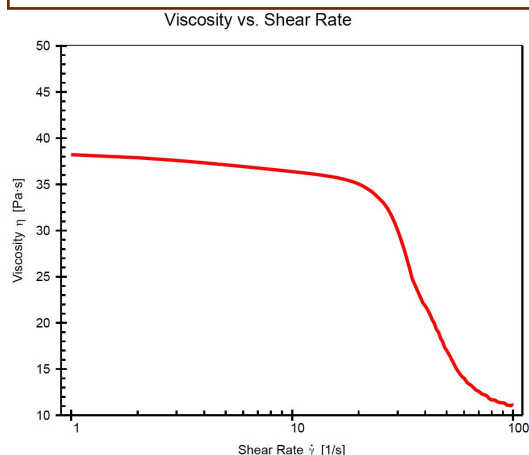
Adhesives and coatings that are desired to benefit from reduced shrinkage, scratch resistance, increased durability and high light transmission.

BENEFITS

MA0736 is excellent as a multifunctional rheological diluent. The combination of MA0736 with 30% nanosilica improves the reinforcement, provides an additional functional feature and resolves airborne exposure issues of nanosilica.

TYPICAL PROPERTIES

Appearance	Clear, colorless gel
Molecular Weight	1321-1982
Refractive Index	1.46

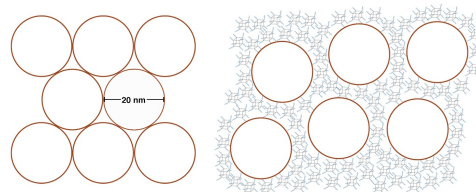


REGULATORY STATUS FOR MA0736

INCI, LVE, CAS 1620202-27-8.

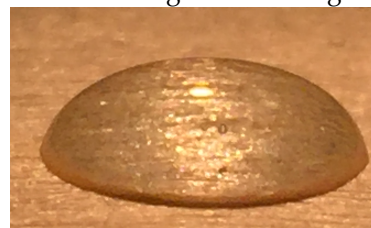
HANDLING PRECAUTIONS

Before handling, read product and safety data sheets and container labels for safe use, physical health and hazard information. For material safety data information, contact Hybrid.



FEATURE 1:

POSS® cages are less than one-tenth the diameter of untreated nanosilica (left); POSS (right) affords nanosilica with increased dispersion and flow properties while maintaining the advantages of nanosilica.



FEATURE 2:

Unlike untreated nanosilica powder, MA4L36.01 nanosilica is a liquid wherein the MA0736 carrier helps improve flow and optical properties.

DESCRIPTION

MA4L36.08.30 is two reinforcing agents in one. MA0736 is a hybrid, 1.5 nm molecule with an inorganic silsesquioxane at the core, and organic acrylate groups attached at the corners of the cage, which acts as a multi-functional crosslinker. At 30 weight percent loadings, 20nm nanosilica is completely dispersed into the MA0736. This creates a clear, colorless viscous liquid, which is easily formulated with other coating components.

Solvents	
THF	Soluble
Chloroform	Soluble
Acetone	Soluble
Ethanol	Soluble
Acetonitrile	Soluble
Water	Insoluble
Aliphatic Resins	
Nearly all epoxy resins	Soluble
Nearly all acrylic resins	Soluble
Aromatic Resins	
Nearly all epoxy resins	Soluble
Nearly all acrylic resins	Soluble

RELATED LITERATURE

Preparation and Physicochemical Properties of Functionalized Silica/Octamethacryl-Silsesquioxane Hybrid Systems <http://dx.doi.org/10.1155/2013/674237>

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