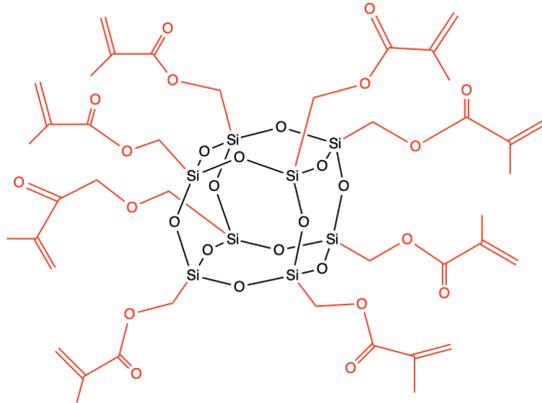


# Alpha Methacryl POSS®

## FEATURES

Clear, colorless liquid oil.



## APPLICATIONS

Adhesives and coatings that benefit from reduced shrinkage, scratch resistance, and high light transmission.

## TYPICAL PROPERTIES

Appearance	Clear, colorless viscous resin
Viscosity (@25°C)	110-130 Pa s @ 25°C 9-12 Pa s @ 55°C
Refractive Index	1.487 @ 19.3 °C
Formula Weight	1223.57 for octamer
Equivalent Weight	153
Resin Solubility	Vinyl ester, acrylic, epoxy, urethane

## REGULATORY STATUS

R&D use at this time

Not a primary dermal irritant.

## 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 use, physical health and hazard information. For material safety data information, contact Hybrid.**



## BENEFITS

Rapid cure, enhanced adhesion and modulus while providing high light transmission.

The short linkage between reactive group and cage provides increased cage-effect such as hardness (Shore D 40-50 *via its homopolymer*) and modulus while maintaining soluble/compatibility.

## DESCRIPTION

MA0737 is a hybrid molecule with an inorganic silsesquioxane at the core and organic methacrylate groups attached at the corners of the cage. MA0737 can provide fast UV stability, enhanced moisture resistance and adhesion.

## COMPATIBILITY

Solvents	
THF, ketones, acetates	Soluble
Water, silicone	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

## ADDITIONAL GLASSIFICATION ATTRIBUTE

MA0737 is amenable to in situ surface classification via 185 nm UV, oxygen plasma or corona treatments. Upon exposure, the POSS cages convert into a silica surface. This attribute has been utilized for high hardness, silica-like surface coatings and/or bondable tie-layers for coating stacks on polymer film.

## RELATED COMPOSITIONS

The alpha methacryl functionality can also be provided in combination with other reactive and non-reactive groups attached to the cage core.

Please contact us to learn about the new generation of heteroleptic cage POSS® additives.

[www.hybridplastics.com](http://www.hybridplastics.com)