



DATA SHEET NYACOL® S125M

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METHACRYLATE FUNCTIONALIZED NANO-PARTICLE SILICA

NYACOL S125M is a new development in nano-sized silica. Nyacol S125M is an amorphous silica powder composed of 70–80 nm primary particles which have a methacrylate-functionalized surface. The powder is supplied as agglomerates of 10–20 microns, but as a result of Nyacol's unique technology, the agglomerates break down to the primary size with simple mixing in the monomers for which the product has been designed, providing high transparency coatings.

The use of this product will provide the formulator of abrasion-resistant coatings with a new alternative for designing a coating, since the silica can be added independent of the mix of monomers being used in the formulation. The dispersibility of Nyacol S125M in TMPTA and HDODA is excellent. Nyacol has not tested other monomers. The product will disperse with simple mixing, but for the best results, we suggest a high shear mixer such as a rotor-stator type be used, especially for higher viscosity monomers.

Nyacol S125M is intended for clear, abrasion-resistant and scratch-resistant coating applications based on UV-curable acrylates. This product can be dispersed easily in the acrylate monomers. The amount of silica needed will depend on the requirement of each application and will need to be determined for each formulation. We expect that major cost savings can be achieved using S125M in abrasion-resistant coatings compared to using silica pre-dispersed in the monomers.

TYPICAL PROPERTIES

Physical Form:	Powder
Appearance:	White
SiO ₂ , %:	85
Methacrylate functional coating, %	15

FOR ADDITIONAL INFORMATION OR TO PLACE AN ORDER

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