

Optically Clear Materials for Healthcare Applications

NuSil's optically clear elastomers for healthcare applications are all highly processed materials that crosslink via an addition cure mechanism. Optically clear, or transparent, means that light waves are partially reflected and partially refracted (transmitted through the material). Refractive index (RI) is defined as the ratio of the velocity of light in a vacuum to the velocity of light in a material¹. The high refractive indexes of the products listed below indicate that they are highly responsive to light. These restricted healthcare materials meet all USP Class VI and many ISO-10993 test requirements for biocompatibility. For more information on NuSil's restricted and unrestricted materials, please visit www.nusil.com or refer to the selection guides.

Low Consistency Elastomers

Low consistency elastomers (LCEs) are rubber-like materials with relatively low viscosity that cure rapidly with heat. LCEs can be used as coatings (such as for sensors or lenses) or as molded components. With the proper mold design, they can also be used in liquid injection molding.

Dispersions

Dispersions are silicone elastomer systems that are suspended or dissolved in a solvent carrier. Silicone dispersions vulcanize by a ramp cure with heat and typically have greater strength than LCEs and a low viscosity. They can be used in dip coating or in any application where high-strength, optically clear elastomers are wanted as coatings for existing substrates or components.

Product Name	Viscosity (cP)	RI	Durometer Type A	Mix Ratio	Tensile psi (MPa)	Elongation (%)
Low Consistency Elastomers						
MED-6010	Part A: 19,000 Part B: 13,000	1.43	45	1 to 1	900 (6.2)	140
MED-6015	Part A: 6,000 Part B: 90	1.41	50	10 to 1	1,300 (9.0)	100
MED-6019	Part A: 30,000 Part B: 20,000	1.41	75	1 to 1	1,200 (8.3)	65
MED-6020	Part A: 70,000 Part B: 40,000	1.43	40	1 to 1	640 (4.4)	175
MED-6033	Part A: 75,000 Part B: 50,000	1.41	50	1 to 1	750 (5.2)	305
MED-6755	Part A: 40,000 Part B: 35,000	1.46	30	1 to 1	675 (4.7)	275
Dispersions						
MED10-6400 (in xylene)	600	1.43	30	1 to 1	1,500 (10.3)	775
MED10-6600 (in xylene)	400	1.46	25	1 to 1	1,200 (8.3)	750

It is the sole responsibility of each purchaser to ensure that any use of these materials is safe and complies with all applicable laws and regulations. It is the user's responsibility to adequately test and determine the safety and suitability for their applications and NuSil Technology makes no warranty concerning fitness for any use or purpose.

About NuSil Technology

NuSil Technology is a global manufacturer of silicone materials for the pharmaceutical, drug delivery, and medical device industries. Developing novel silicone systems, NuSil offers a complete line of customizable adhesives, elastomers, fluids, and gels. NuSil meets the demands of new and innovative technologies by building on our experience and expanding product lines and services to offer exclusive silicone solutions specifically designed for drug delivery and combination medical device products. ISO 9001-certified since 1994, NuSil operates state-of-the art laboratories and processing facilities in North America and on-site, in-person application engineering support worldwide.



NuSil Technology LLC Carpinteria, Ca +1 (805) 684-8780 +1 (805) 566-9905 Fax silicone@nusil.com

NuSil Technology Europe

Parc d'Activités de Sophia Antipolis MOUGINS France +33 4 92 96 93 31 +33 4 92 96 06 37 Fax nusil.sophia@nusil.com

NuSil Technology Asia

Singapore + 65 64306690 + 65 64306691 Fax nusilasia@nusil.com

For more information please visit: www.nusil.com