LOCTITE®

MEDICAL DEVICE ADHESIVE SOLUTIONS FOR TPE ASSEMBLIES

INTRODUCING LOCTITE® AA 3952 AND LOCTITE® SI 5057

Medical Device Regulations from the FDA and the EU MDR have established restrictions regarding phthalates used in elastomers or plastics for medical devices, driving medical device manufacturers to design in substrates without phthalates.

Consequently, the use of Thermoplastic Elastomers (TPEs), in particular TPE-S and TPE-O, are increasing in usage in medical devices due to their versatility in formula and performance, and moderate cost. These alternative TPE materials can present challenges in adhesive adhesion and bonding performance, often requiring pretreatment such as primer, plasma, etc.

New LOCTITE® AA 3952 and LOCTITE® SI 5057 medical device light cure adhesives provide without surface-pretreatment enhanced adhesion and bonding performance to TPE-O, TPE-S and other challenging elastomers. These new adhesive solutions are designed to address the broad range of TPE materials ranging from semi-flexible to highly flexible, and are tested to Henkel's test protocols based on ISO-10993 biocompatibility.

Design the future of medical devices.

Henkel

Henkel Adhesive Technologies

LOCTITE®

LOCTITE® AA 3952

Low viscosity UV/VIS light curing acrylic adhesive. It offers typical acrylate hardness and cure speed. It is designed to bond to low polarity rigid and flexible materials like thermoplastic elastomers, such as TPE-S, TPE-O and PEBA.

- Acrylate properties
- Flexible
- Good dielectric loss characteristics
- Enhanced Adhesion to TPE-S, TPE-O and PEBA

LOCTITE® SI 5057

Low viscosity UV/VIS light curing silicone adhesive. It offers the softness and elongation of a silicone and provides good adhesion to low and very low polarity flexible and highly flexible materials like TPE-S, TPE-O thermoplastic elastomers, silicones or flexible PP.

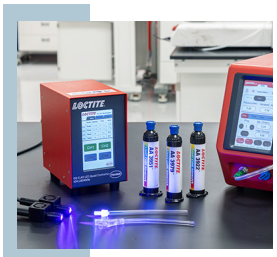
- Silicone properties
- Highly flexible
- Enhanced adhesion to TPE-S, TPE-O, other low polarity elastomers, and Silicones

Product Benefits

- Enhanced adhesion to rigid, flexible and highly flexible low polarity elastomers
- Low viscosity for narrow bond-lines and for pre- and post-apply
- Light curing with bulbs or LEDs for fast processing with defined short cure times
- Fluorescence for detection of adhesive presence and flow control
- Biocompatibility tested to Henkel's test protocols based on ISO-10993 standards
- Formulated without hazardous ingredients

LOCTITE® LIGHT CURE ADHESIVES PROPERTIES CHART

	LOCTITE® AA 3952	LOCTITE® SI 5057
Chemistry	UV/VIS Light Cure Acrylic	UV/VIS Light Cure Silicone
Appearance	Transparent clear	Transparent clear
Viscosity 25°C, mPa•s (cP)	600 (nominal)	750 (nominal)
Shore Hardness: ISO 868	Shore D 62	Shore A 60
Elongation, at break, ISO 527-3, %	90	211



Curing

LOCTITE® AA 3952 and LOCTITE® SI 5057 can be cured with UV or visible light. The newest LOCTITE® LED curing units are ideally suited for rapid curing of Henkel´s light curing adhesives.

Dispensing

LOCTITE® AA 3952 and LOCTITE® SI 5057 can be applied with LOCTITE® dispensing equipment, designed for manual, semiautomated and fully automated operations.

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