



Press Release

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Encapsulants tested to ISO 10993 biocompatibility standards for medical devices

Henkel low pressure molding materials protect and seal medical electronics

Düsseldorf, Germany – Henkel has introduced three new low pressure molding (LPM) materials designed to seal and protect medical devices from moisture, temperature extremes, chemicals, vibration, impact and other environmental concerns. Using a gentle, low pressure process, Loctite PA 6732, Loctite PA 6682 and Loctite PA 6951 completely encapsulate medical devices including catheters, tube sets, connectors, and surgical tools, as well as sensors and switches used in medical diagnostic and monitoring equipment. All three LPM products are tested to Henkel's protocols based upon ISO 10993 biocompatibility standards including skin sensitization, with certificates available on request.

LPM hot melts completely replace thermoplastic housings and allow manufacturers to produce complex and intricate assemblies by customizing part geometry, surface texture, color and opacity. These materials form an adhesive bond with the entire component being encapsulated, becoming part of the component's three-dimensional form and creating a water-tight, chemically-resistant seal. The cost-effective LPM process involves three steps: placing the bare component into a custom mold set, heating the polyamide material and injecting it at low pressure into the mold, and allowing the material to cool rapidly for 10 to 50 seconds before removing the newly encased and bonded component for immediate use.

Formulated to allow greater design freedom than traditional medical encapsulants, Loctite PA 6732, Loctite PA 6682 and Loctite PA 6951 are single component, solvent-free polyamides that are solid at room temperature. Derived from natural fatty acid feed stocks obtained from renewable resources such as soy, rapeseed and sunflowers, they are green and sustainable. No harmful fumes are released during the molding process, and all products are RoHS and REACH compliant.

Loctite PA 6732 is an amber material that performs well in temperatures from -40 to 140°C. Clear Loctite PA 6682 is designed for use in temperatures between -25 and 105°C. Loctite PA 6951 is a colorless material that performs well in temperatures from -40 to 100°C.

These new products are part of Henkel's complete portfolio of LPM products used in electronic components, power and industrial automation, HVAC, and lighting applications. For more information or to request a sample, contact us at industrials@henkel.com or visit <https://henkel-adhesives.com/lowpressuremolding>.

LOCTITE® is a registered trademark of Henkel and/or its affiliates in Germany, the U.S. and elsewhere.

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Its Henkel Adhesive Technologies business unit is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care business units, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2020, Henkel reported sales of more than 19 billion euros and adjusted operating profit of about 2.6 billion euros. Henkel employs about 53,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

Photo material is available at www.henkel.com/press

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Low pressure molding provides environmental and electrical protection for wearable pulse oximeters.



Low pressure molding is used to encapsulate PCBs used in medical diagnostic and monitoring devices to protect them from moisture, temperature and chemicals.



Loctite low pressure molding materials have been tested to Henkel's protocols based upon ISO-10993 biocompatibility standards, with certificates available on request.