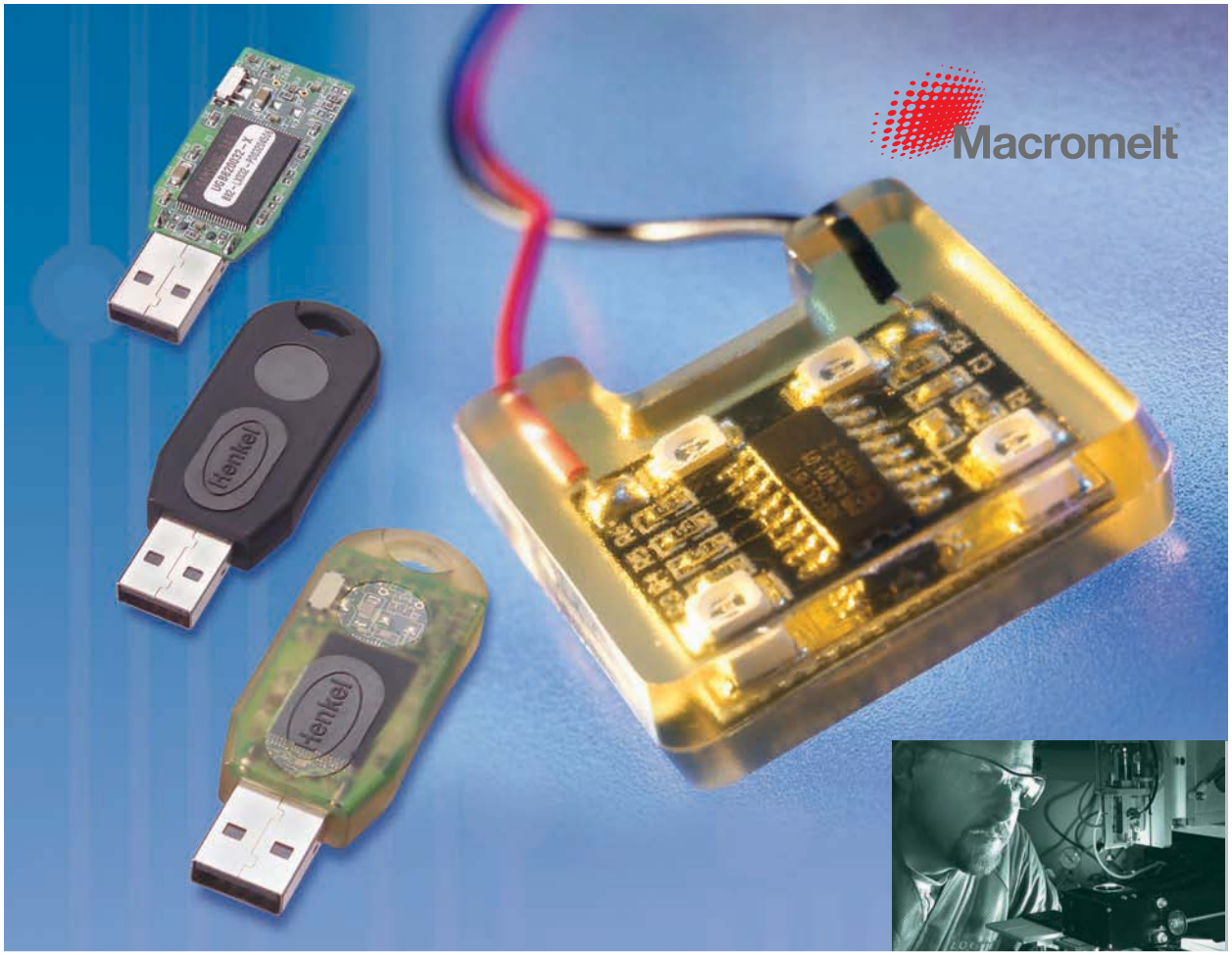

MACROMELT® CIRCUIT BOARD PROTECTION PRODUCTS

Macromelt® circuit board protection products provide good adhesion, an excellent environmental seal, high in-service temperature resistance, and good resistance to solvents. The low melt viscosity of these materials allow for low capital equipment cost and low molding pressure that will not damage delicate electronic surface mount components.

Low pressure molding is the solution to production issues associated with traditional high-pressure injection molding over sensitive electronic components or circuit boards. The polyamide hot melt adhesive material may actually be used to mold-in mounting studs or eyes, eliminate injection molded housings and covers, and replace epoxy potting operations all in one simple process. The materials also provide great strain relief in molded grommets and connectors.

The low viscosity of the Macromelt® material allows for insert molding at pressures as low as 1.8 bar (25 psi). The low molding pressure is critical when over-molding and sealing fragile surface mount components, wire bonds and solder joints. With a short cycle time of 15 to 45 seconds, injection-molding results in very high production rates compared to generic 24-hour cure, 2-component urethane, or epoxy potting operations.

Macromelt ® Applications

- Automotive Sensors
- Hall Effect Sensors
- Circuit Board Protection
- Strain Relief
- Switches
- Battery Sealing

Macromelt®

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Macromelt ® Advantages

- Complete water-tight encapsulation
- Fast cycle time (15-45 seconds)
- Low capital equipment costs
- Safe, 1-component, UL 94-V0 approved
- Low pressure and high speed molding for electronics encapsulation

Polyamide. High Temperature Resistance

PRODUCT	DESCRIPTION	COLOR	PERFORMANCE TEMP	SHORE A HARDNESS	SOFTENING POINT
OM 673™	Moldable polyamide with good adhesion for highe temperature applications such as in an automotive under-hood.	Amber	-40°C to 140°C	90	187 ± 5°C
OM 678™		Black			
OM 682™	Moldable polyamide for the most demanding high humidity applications such as on the inside of an automobile tire. Formulated for very low water vap transmission.	Amber	-40°C to 140°C	88	188 ± 5°C
OM 687™		Black			

Polyamide. Adhesion to Plastics

PRODUCT	DESCRIPTION	COLOR	PERFORMANCE TEMP	SHORE A HARDNESS	SOFTENING POINT
OM 633™	Moldable polyamide with service temperature up 125°C such as in an automotive firewall.	Amber	-40°C to 130°C	90	175 ± 5°C
OM 638™		Black			
OM 652™	Moldable polyamide where excellent adhesion an cold temperature flexibility are important such as an automotive exterior. Also used extensively in white goods.	Amber	-40°C to 100°C	77	157 ± 5°C
OM 657™		Black			
MM 6208™	Moldable polyamide with excellent adhesion to to substrates. Great flexibility offers incredible strain relief on cables and wires. Ideal for encapsulation heat producing components in appliance and consumer electronics. UL RTI 95°CR	Amber	-40°C to 110°C	78	155 ± 5°C
MM 6208S™		Black			

Polyamide. Increased Hardness

PRODUCT	DESCRIPTION	COLOR	PERFORMANCE TEMP	SHORE A HARDNESS	SOFTENING POINT
OM 641™	Moldable polyamide where strength and hardness needed such as in memory sticks and computer connectors.	Amber	-40°C to 130°C	92	175 ± 5°C
OM 646™		Black			

Polyolefin. Excellent Adhesion to Metals, Plastics, Tough Surfaces

PRODUCT	DESCRIPTION	COLOR	PERFORMANCE TEMP	SHORE A HARDNESS	SOFTENING POINT
MM Q-5375™	Moldable polyolefin for demanding moisture solvent resistance. Excellent adhesion to the most difficult substrates.	Opaque White	-30°C to 100°C	55	139 ± 5°C

Henkel Corporation
15350 Barranca Parkway
Irvine, CA 92618
1-949-789-2500
1-800-562-8483

Across the Board, Around the Globe.
www.henkel.com/electronics

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