Housings that Optimize Reliability and Processing

DOWSIL™

Although simple compared to the sophisticated components they often harbor, housings are no less important to the long-term performance and reliability of today's vehicles. They protect critical components against moisture, dust and chemicals, and yet they contribute minimal impact to a vehicle's total cost of ownership.

Dow's broad selection of high-performance silicone adhesives and sealants can help your housing design achieve all these goals. Delivering excellent unprimed adhesion for lid seal and fixturing applications, our advanced materials adhere to common device substrates, such as FR4, polybutylene terephthalate, aluminum and copper. Their strong-but-flexible bonds remain uncompromised over a wide range of operating temperatures, from -45°C to 150°C, and adapt well to materials with mismatched coefficients of thermal expansion.

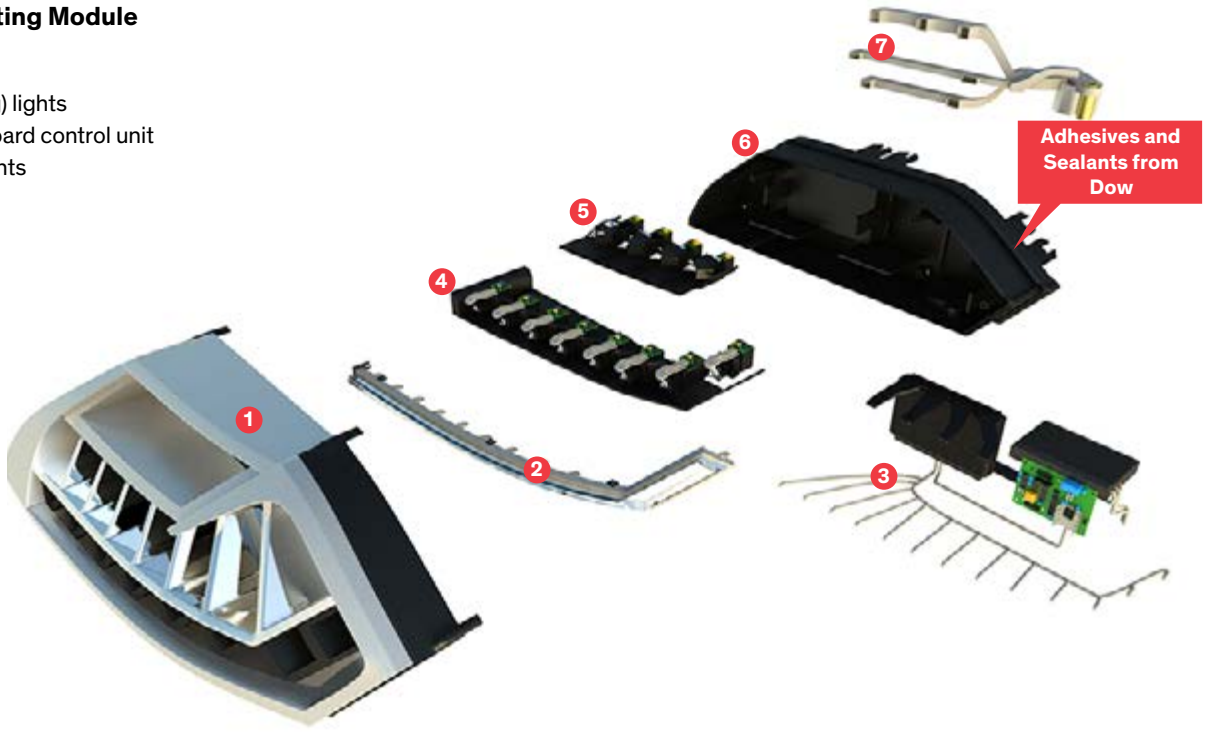
Combined with Dow's processing expertise, our proven silicone adhesives also can help reduce the total cost of ownership for printed circuit board housings. The reliable bonds they form on a variety of substrates introduce expanded design options for housings and connector boards. In addition, the wide range of viscosities and cure chemistries available in our portfolio offers versatile processing flexibilities. Whether your application requires a fast or low-temperature cure, we can offer a solution to help minimize costs or increase productivity. As constant innovators, we at Dow also are exploring next-generation silicone solutions that cure even more quickly at lower temperatures.

One Company: Many Automotive Solutions

Dow offers the proven materials, expertise and collaborative culture to help you get the job done right. If you cannot find an off-the-shelf solution that meets your precise specifications, contact us. Our materials experts often can tailor a solution that will enable your printed circuit board housing application to meet your goals for performance, processing and cost.

Automotive Lighting Module

1. Dazzle
2. Daytime (running) lights
3. Printed circuit board control unit
4. Dimmed headlights
5. LED matrix
6. Back housing
7. Air duct



Imagine

Featured Products

Product	Description	Cure Profile	Adhesion Strength on Aluminum	Viscosity (Pa.sec)	Elastomeric Modulus (MPa)
SYLGARD™ 577 Primerless Silicone Adhesive	2-part, gray, flowable adhesive with high tensile strength and good flame resistance	60 min @ 125°C	984 psi	(Mixed) 98.0	6.8
DOWSIL™ 3-6265 Thixotropic Adhesive	1-part, black, nonflowing adhesive with high tensile strength; UV indicator for inspection	60 min @ 125°C 30 min @ 150°C	611 psi	(Low Shear) 1,020 (High Shear) 2,350	2.9
DOWSIL™ 3-6265 HP Thixotropic Adhesive	1-part, black, nonflowing adhesive with high tensile strength	240 min @ 100°C 25 min @ 125°C 10 min @ 150°C	825 psi 5.7 MPa 568 N/cm^2	10.7	5.8
DOWSIL™ Q3-6611 Adhesive, Black & Gray	1-part adhesive with good flowability and high tensile strength	180 min @ 100°C 60 min @ 125°C 30 min @ 150°C	850 psi 5.9 MPa 586 N/cm^2	92.4	5.8
DOWSIL™ 7091 Adhesive Sealant	1-part, gray and white, nonflowing adhesive/sealant with good adhesion	48 hrs @ 25°C/50% RH (3 mm thickness)	[1]	Thixo	2.5
DOWSIL™ 3140 RTV Coating	1-part, translucent adhesive or coating with good flowability, good flame resistance; UL, IPC and Mil Spec tested	48 hrs @ 25°C/50% RH (3 mm thickness)	40 psi	34.4	3.0
DOWSIL™ 3145 RTV MIL-A 46146 Adhesive/ Sealant, Clear & Gray	1-part, nonflowing adhesive with high tensile strength and elongation; MIL-A-46146 Group II tested	48 hrs @ 25°C/50% RH (3 mm thickness)	1,900 psi 13.1 MPa 131 N/cm^2	Thixo	6.1
DOWSIL™ 3165 Fast Tack RTV Adhesive Sealant	1-part, gray, nonflowing adhesive; fast tack-free with good green strength and good flame resistance	48 hrs @ 25°C/50% RH (3 mm thickness)	200 psi 1.4 MPa 138 N/cm^2	Thixo	0.9
DOWSIL™ 3-1598 HP Adhesive	1-part, black, flowable adhesive with high tensile strength	180 min @ 100°C 30 min @ 125°C 15 min @ 150°C	712 psi 4.97 MPa 497 N/cm^2	82.0	5.4
DOWSIL™ 3-6876 Black & Gray Adhesive	1-part adhesive with good flowability and high tensile strength	300 min @ 100°C 60 min @ 125°C 30 min @ 150°C	640 psi 4.4 MPa 439 N/cm^2	41.3	5.5

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow sales office or your Global Dow Connection before writing specifications on this product.
[1]Adhesion cured 7 days at 23°C (73°F) and 50% relative humidity; 100% cohesive failure is obtained on metals and glass as well as on ABS, polycarbonate, talc-filled polypropylene-corona treated, anti-scratch coated plastic.

Learn More

We bring more than just an industry-leading portfolio of advanced silicone-based materials. As your dedicated innovation leader, we bring proven process and application expertise, a network of technical experts, a reliable global supply base and world-class customer service.

To find out how we can support your applications, visit **consumer.dow.com/pcb.**

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