

IMAGINE: Housings that Optimize Reliability and Processing

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

Dow Corning'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 electronics 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.

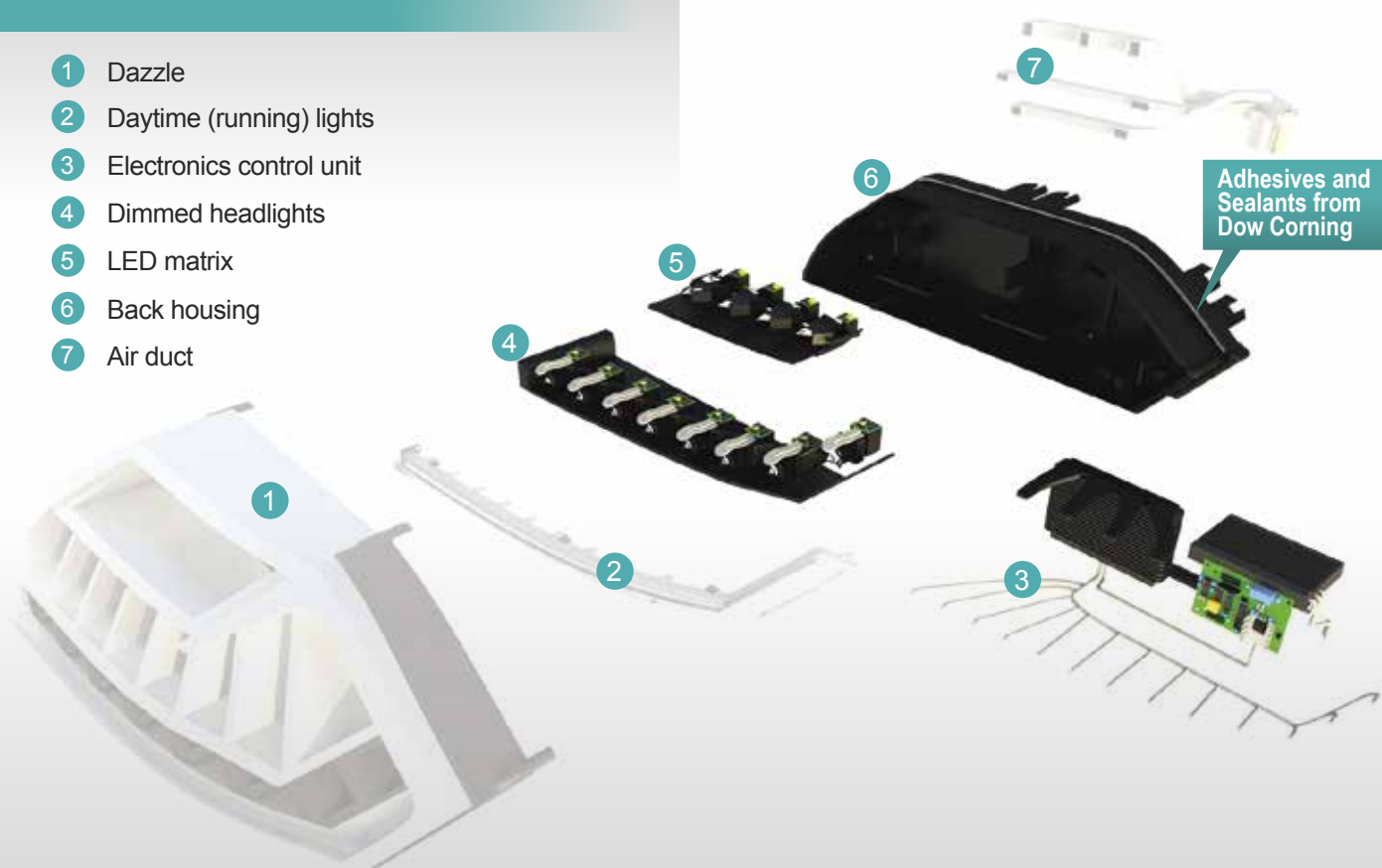
Combined with Dow Corning's processing expertise, our proven silicone adhesives also can help reduce the total cost of ownership for electronic housings. The reliable

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 Corning also are exploring next-generation silicone solutions that cure even more quickly at lower temperatures.

One Company: Many Automotive Solutions

Dow Corning 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 electronics housing application to meet your goals for performance, processing and cost.

- 1 Dazzle
- 2 Daytime (running) lights
- 3 Electronics control unit
- 4 Dimmed headlights
- 5 LED matrix
- 6 Back housing
- 7 Air duct



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
Dow Corning® 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
Dow Corning® 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
Dow Corning® 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
Dow Corning® 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
Dow Corning® 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
Dow Corning® 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
Dow Corning® 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
Dow Corning® 3-1598 HP	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
Dow Corning® 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 Corning sales office or your Global Dow Corning 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.

How Can We Help You Today?

Tell us about your performance, design and manufacturing challenges. Let us put our silicon-based materials expertise, application knowledge and processing experience to work for you.

For more information about our materials and capabilities, visit dowcorning.com.

To discuss how we could work together to meet your specific needs, email electronics@dowcorning.com or go to dowcorning.com/ContactUs for a contact close to your location. Dow Corning has customer service teams, science and technology centers, application support teams, sales offices, and manufacturing sites around the globe.

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Segment 1

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