Product Information
Silicone
Quick in Connect
Adhesive

Dow Corning® EA-5151 QiC Adhesive Black

FEATURES & BENEFITS

- Primerless adhesion to most common substrates including plastics and metals
- Instant green strength for fast and high throughput assemblies
- Long open time and pot life
- Neutral cure RTV adhesive
- Allows for UV inspection of adhesive bead for quality control
- Service temperatures from -45 to 150°C (-50 to 300°F)
- Can be used with standard heat assisted dispensing equipment

COMPOSITION

- One-component, neutral (moisture) cure, heat assist dispensed silicone pressure sensitive adhesive

This reactive silicone Quick in Connect (QiC) adhesive utilizes silicone technology to achieve instant green strength when dispensed and cures to strong moisture-cured silicone adhesive.

APPLICATIONS

- *Dow Corning*® EA-5151 QiC Adhesive Black material is intended for use in automotive electronics or industrial and energy control units, sensors, displays, battery packs and other components requiring attachment, gasketing, lid seal, connector sealing or adhesion.

TYPICAL PROPERTIES

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.

Test[1]	Property	Unit	Result
CTM 0176	Appearance		Black
CTM 0839	Nonvolatile Content	percent	> 98.5
CTM 0022	Specific Gravity	uncured	1.1
CTM 0243	Pot Life at 120°C	hours	24
CTM 1134	Viscosity at 120°C	Pa-s[2]	55–65
CTM 0243	Aluminum Lap Shear Adhesion 1 day/7 days	MPa	0.4/0.9
ASTM C661	Durometer – Shore A	points	55–57
ASTM D412	Tensile Strength	MPa	4.5–4.7
ASTM D412	Elongation	percent	> 900
	180° Peel Strength[3] after 1 day	pli	20
CTM 0243	Open Time[4] or Assembly Time	minutes	15
ASTM C711	Service Temperature Range	°C	-45 to 150

[1]CTM (Corporate Test Method) corresponds to ASTM (American Society for Testing and Materials) standard tests in many cases. Copies of CTMs are available upon request.
[2]1 Pa-s = 1000 cP
[3]From aluminum substrate
[4]To ensure full adhesion

DESCRIPTION

Dow Corning EA-5151 QiC Adhesive Black is a moisture curing silicone adhesive formulated to have immediate green strength to offer assembly improvements. Assembled parts made with this adhesive can be handled immediately after its application. As a viscoelastic material when cured and then exposed to high temperatures, this product will soften but recovers to its typical properties when cooled down.

HOW TO USE

Preparation

Surfaces should be clean and dry before application of the adhesive.

Application

Application temperature is typically 120°C, but not greater than 150°C. When the temperature is reached, it can be applied with automated or hand-assisted dispensing equipment. Once applied, the parts should be assembled within 15 minutes, and this product reacts with the atmospheric moisture to form a strong-bonded flexible silicone adhesive. Exposure of opened containers to air should be minimized.

This product should be applied at temperatures around 120°C. Use personal protective equipment to prevent the contact of hot material with skin or eyes.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 32°C in the original unopened containers, this product has a usable life of 12 months from the date of production.
Refer to product packaging for "Use by Date".

PACKAGING INFORMATION

This product is available in 304 mL aluminum cartridges and 22 kg pails. Consult Dow Corning representative for other package considerations.

LIMITATIONS

Dow Corning EA-5151 QiC Adhesive Black is not intended for use:

- In spaces totally confined from atmospheric moisture during cure
- In continuous water immersion
- On surfaces that might bleed oils, plasticizers, or solvents
- On wet surfaces

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

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The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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