

Internet Address:  
[www.emersoncuming.com](http://www.emersoncuming.com)

| Key Feature:   | Benefit:  |
|--|---|
| <ul style="list-style-type: none"> <li>One component</li> </ul>      | <ul style="list-style-type: none"> <li>Ease of use</li> </ul>   |
| <ul style="list-style-type: none"> <li>Very high strength</li> </ul> | <ul style="list-style-type: none"> <li>Provides structural bonding to a wide variety of substrates</li> </ul> |
| <ul style="list-style-type: none"> <li>Non-sag paste</li> </ul>      | <ul style="list-style-type: none"> <li>No flow or sag even on vertical surfaces</li> </ul>                    |

**Product Description:**

ECCOBOND G 909 is a one component, thixotropic epoxy adhesive. It combines flexibility at temperatures down to -30°C with high peel and tensile shear strength over a broad temperature range. ECCOBOND G 909 forms strong bonds to copper, aluminum, fiberglass reinforced plastics and oily steel.

**Applications:**

ECCOBOND G 909 is designed for very high strength structural bonding especially for dissimilar substrates that will be exposed to a wide range of operating temperatures.

**Properties of Material As Supplied:**

| Property       | Test Method | Unit              | Value       |
|----------------|-------------|-------------------|-------------|
| Chemical Type  |             |                   | Epoxy       |
| Appearance     | Visual      |                   | Gray paste  |
| Density        | ASTM-D-792  | g/cm <sup>3</sup> | 1.15        |
| Press Flow     | TP 31*      | seconds           | 65          |
| Sag Resistance | TP 29*      | mm<br>mil         | 12.7<br>500 |

**Instructions For Use:**

Thoroughly read the information concerning health and safety contained in this bulletin before using. Observe all precautionary statements that appear on the product label and/or contained in individual Material Safety Data Sheets (MSDS).

To ensure the long term performance of the bonded assembly, complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt, and oils which can cause poor adhesion or corrosion in a bonded part. For information on proper substrate preparation, refer to the reprint "Good Adhesive Bonding Starts With Surface Preparation" available from Emerson & Cuming.

Apply the adhesive to all surfaces to be bonded and join together. In most applications only contact pressure is required.

**Cure Schedule:**

Cure at any one of the recommended cure schedules. For optimum performance, follow the initial cure with a post cure of 2 - 4 hours at the highest expected use temperature. Alternate cure schedules may also be possible. Contact your Emerson & Cuming Technical Representative for further information.

| Temperature | Cure Time      |
|-------------|----------------|
| °C          | Time (minutes) |
| 100         | 90             |
| 120         | 30             |
| 150         | 20             |

**Properties of Material After Application:**

| Property   | Test Method | Unit       | Value       |
|--|-------------|------------|-------------|
| Hardness<br>@ 25°C<br>@ 120°C  | ASTM-D-2240 | Shore D    | 78          |
|  |             |            | 35          |
| Tensile Lap Shear Strength<br>aluminum to aluminum @ 25°C<br><br>aluminum to aluminum @ 100°C<br><br>steel to steel @ 25°C | ASTM D-1002 | mPa        | 39.8        |
|  |             | psi        | 5,800       |
|  |             | mPa        | 20.2        |
|  |             | psi        | 2,950       |
|  |             | mPa        | 32.2        |
|  |             | psi        | 4,700       |
| T-Peel Strength<br>aluminum to aluminum @ 25°C   | ASTM-D-1876 | N/m<br>pli | 5,250<br>30 |
| Temperature Range of Use   |             | °C         | -40 to +150 |

**Storage and Handling:**

The shelf life of ECCOBOND G 909 is 3 months at 4°C. For best results, store in original, tightly covered containers. Storage in cool, clean and dry areas is recommended. Usable shelf life may vary depending on method of application and storage conditions.

**Health and Safety:**

The ECCOBOND G 909, like most epoxy compounds, possesses the ability to cause skin and eye irritation upon contact. Certain individuals may also develop an allergic reaction after exposure (skin contact, inhalation of vapors, etc.) which may manifest itself in a number of ways including skin rashes and an itching sensation. Handling this product at elevated temperatures may also generate vapors irritating to the respiratory system.

Good industrial hygiene and safety practices should be followed when handling this product. Proper eye protection and appropriate chemical resistant clothing should be worn to minimize direct contact. Consult the Material Safety Data Sheet (MSDS) for detailed recommendations on the use of engineering controls and personal protective equipment.

*This information is only a brief summary of the available safety and health data. Thoroughly review the MSDS for more complete information before using this product.*

**Attention Specification Writers:**

The values contained herein are considered typical properties only and are not intended to be used as specification limits. For assistance in preparing specifications, please contact Emerson & Cuming Quality Assurance for further details.

■ Underfills Solder Alternatives C.O.B. Materials  
Film Adhesives Thermal Interfaces ■



■ Encapsulants Coatings Adhesives  
Electrically Conductive Coatings and Adhesives ■

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