



AMICON[®] C 850-6

Silver Filled, Epoxy Die Attach Adhesive

Internet Address:
www.emersoncuming.com

Key Feature:	Benefit:
<ul style="list-style-type: none"> One component 	<ul style="list-style-type: none"> Ease of use
<ul style="list-style-type: none"> Silver filled 	<ul style="list-style-type: none"> Yields excellent electrical and thermal conductivities
<ul style="list-style-type: none"> Low viscosity 	Reduces tailing and stringing in production equipment

Product Description:

AMICON C 850-6 is a fast curing, one component, low viscosity, silver filled epoxy die attach adhesive. It features high electrical and thermal conductivity and high strength at wire bond temperatures. AMICON C 850-6 also features a low viscosity to avoid tailing, stringing and dry out problems in high speed die attach equipment.

Applications:

AMICON C 850-6 is designed for bonding most plastic packaged ICs and other die attach applications.

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.

Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use. Power mixing is preferred to ensure a homogeneous product.

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

Properties of Material As Supplied:

Property	Test Method	Unit	Value
Chemical Type			Silver filled epoxy
Appearance	Visual		Silver paste
Density	ASTM-D-792	g/cm ³	3.2
Brookfield Viscosity	ASTM-D-2393 5 rpm # TC	Pa.s cP	75 - 125 75,000 - 125,000

Cure Schedule:

Cure at any one of the recommended cure schedules. For optimum performance, follow the initial cure with a post cure of 1-2 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)
125	60
150	30
250	1

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Properties of Material After Application:

Property	Test Method	Unit	Value
Die Shear Test (47 X 50 mil die)	TP 102*	kg	1.6 minimum
Temperature Range of Use		°C	-40 to +125
Volume Resistivity @ 25°C	ASTM-D-257	Ohm-cm	0.001 maximum

*TP's are internal test procedures, typically derived from ASTM or other norms. Copies of these test procedures can be obtained upon request.

Storage and Handling:

The shelf life of AMICON C 850-6 is 6 months at 0°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 temperature.

Health and Safety:

The AMICON C 850-6, 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.

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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.

(AMICON® is a registered trademark of Millipore Corp.)

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■ **Europe**
 Nijverheidsstraat 7
 B-2260 Westerlo
 Belgium
 ☎ : +(32)-(0) 14 57 56 11
 Fax: +(32)-(0) 14 58 55 30

■ **North America**
 46 Manning Road
 Billerica, MA 01821
 ☎ : 978-436-9700
 Fax : 978-436-9701

■ **Asia-Pacific**
 100 Kaneda, Atsugi-shi
 Kanagawa-ken, 243-0807
 Japan
 ☎ : (81) 46-225-8815
 Fax : (81) 46-222-1347