



G500HF

August 2010

PRODUCT DESCRIPTION

G500HF provides the following product characteristics:

Technology	Epoxy
Appearance	Grey
Product Benefits	• One component • Sag resistant • Process ease • Non-abrasive • No flow during cure even on vertical surface • High adhesion strength at elevated temperatures • Long shelf life at room temperature • Excellent resistance to heat and water • Low halogen content (total Cl & Br <1500 ppm)
Cure	Heat cure
Application	Assembly
Operating Temperature	-40 to +180 °C
Typical Assembly Application	Insulation and Attaching leads to coils
Key Substrates	Copper, Ferrite, Rigid plastics and Other metals

G500HF is a general purpose epoxy adhesive and sealant that cures to a high gloss finish.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density , g/cm ³	1.45
Sag Resistance, mils	600 to 900
Press Flow, seconds	30 to 60
Shelf Life @ 25°C, months	3
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

60 minutes @ 125°C or
20 minutes @ 150°C or
5 minutes @ 175°C

Post Cure

2 to 4 hours at the highest expected use temperature
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The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:

Hardness, Shore D:	
@ 25°C	85
@ 120°C	70

Electrical Properties:

Volume Resistivity @ 25°C, ohm-cm	3×10 ¹⁵
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TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength , MPa (psi):

Substrate	@25°C
Aluminum to aluminum	17.5 (2,558)

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

DIRECTIONS FOR USE

1. 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.
2. 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.
3. Apply adhesive to all surfaces to be bonded and join together.
4. In most applications only contact pressure is required.
5. Usable shelf life may vary depending on method of application and storage conditions.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C. Storage greater than or below 25 °C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.



Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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Reference 0.2