

Electrolube® GFP500

Thermally Conductive Gap Filling Pad

DESCRIPTION

Electrolube® GFP500 is a silicone based, thermally conductive and electrically isolating gap filling pad with a high thermal conductivity of 5.0 W/m-K. Due to its flexibility and softness, the **GFP500** is highly suitable for applications where height differences need to be adjusted. The material easily conforms to irregular surfaces, minimizing the overall thermal impedance.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- Thermal conductivity of 5.0 W/m-K; aids rapid heat transfer over uneven surfaces
- Very soft, requires low compression force to ensure good wet-out
- Natural tack for easy processing and reduced interfacial resistance
- Available in a range of thicknesses and die-cut formats

APPROVALS

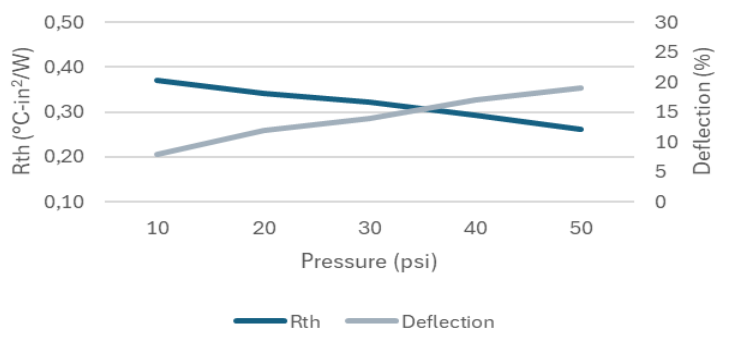
Standard	Status
RoHS	Compliant
REACH	Compliant

PRODUCT INFORMATION

GFP500 is typically converted into customer specific shapes and sizes.
Standard sheet size is 320mm x 320mm (12.6 x 12.6").
Other thicknesses are available upon request.

TYPICAL PROPERTIES

Category	Result	Unit	Test Method
Physical Properties			
Color	Red		Visual
Standard Thickness Range	0.5 to 5.0	mm	-
Natural Tack	2 sides		-
Density	3.2	g/cc	ASTM D792
Hardness	60	Shore 00	ASTM D2240
Operating Temperature Range	-60 to +180	°C	-
Deflection Rates			
10 psi	8	%	ASTM D5470 Modified
30 psi	14		
50 psi	19		
Flammability Rating	V-0		UL94
Electrical Properties			
Dielectric Breakdown	12	kV/mm	ASTM D149
Volume Resistivity	>10 ¹⁰	Ohm - cm	ASTM D257
Thermal Properties			
Thermal Conductivity	5.0	W/m-K	ASTM D5470
Thermal Impedance			
10 psi	0.371	°C-inch ² /W	ASTM D5470
30 psi	0.323		
50 psi	0.262		

Category	Result	Unit	Test Method																		
R _{th} and Deflection versus pressure	 <table border="1"> <caption>Data points for R_{th} and Deflection versus pressure</caption> <thead> <tr> <th>Pressure (psi)</th> <th>R_{th} (°C·in²/W)</th> <th>Deflection (%)</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0.38</td> <td>10</td> </tr> <tr> <td>20</td> <td>0.34</td> <td>12</td> </tr> <tr> <td>30</td> <td>0.31</td> <td>14</td> </tr> <tr> <td>40</td> <td>0.28</td> <td>16</td> </tr> <tr> <td>50</td> <td>0.26</td> <td>18</td> </tr> </tbody> </table>			Pressure (psi)	R _{th} (°C·in ² /W)	Deflection (%)	10	0.38	10	20	0.34	12	30	0.31	14	40	0.28	16	50	0.26	18
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APPLICATION GUIDELINES

Remove protective liners before application.

ADDITIONAL INFORMATION

Shelf Life: 60 Months

The product should be tested to ensure its suitability for the end application conditions.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

CONTACT INFORMATION

www.macdermidalpha.com

<p>North America 140 Centennial Avenue Piscataway, NJ 08854 1.800.367.5460</p>	<p>Europe Ashby Park Coalfield Way Ashby de la Zouch Leicestershire, LE65 1JR, UK 44.01530.41960</p>	<p>Asia 8/F., Two Sky Parc 51 Hung To Road Kwun Tong, Kowloon, Hong Kong, SAR China 852.2500.5365</p>
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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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