Technical Data Sheet

GAP PAD TGP 3000

Known as GAP PAD 3000 S30
April-2021

PRODUCT DESCRIPTION

Thermally Conductive, Reinforced, Soft “S-Class” Gap Filling Material.

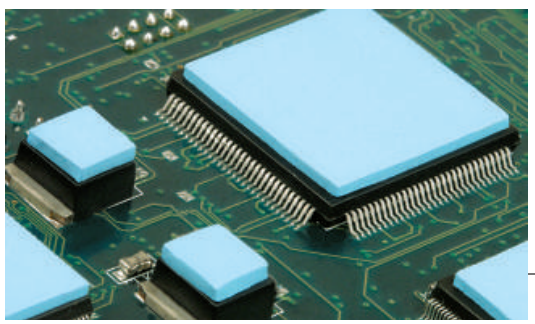
Technology	Silicone
Appearance	Light blue
Reinforcement Carrier	Fibreglass
Thickness , ASTM D374	0.254 to 3.175mm
Inherent Surface Tack	2 (2 sides)
Application	Thermal management, TIM (Thermal Interface Material)
Operating Temperature Range	-60 to 200ºC

FEATURES AND BENEFITS

- Thermal Conductivity: 3.0 W/m-K
- Low “S-Class” thermal resistance at very low pressures
- Highly conformable, “S-Class” softness
- Designed for low-stress applications
- Fiberglass reinforced for puncture, shear and tear resistance

GAP PAD TGP 3000 is a soft gap filling material rated at a thermal conductivity of 3 W/m-K. The material offers exceptional thermal performance at low pressures due to an all new 3 W/m-K filler package and low-modulus resin formulation. It is reinforced to enhance material handling, puncture, shear and tear resistance. It is well suited for high performance, low-stress applications that typically use fixed standoff or clip mounting. GAP PAD TGP 3000 maintains a conformable yet elastic nature that allows for excellent interfacing and wet-out characteristics, even to surfaces with high roughness and/or topography.

GAP PAD TGP 3000 is offered with natural inherent tack on both sides of the material, eliminating the need for thermally-impeding adhesive layers. The material’s natural inherent tack allows for stick-in-place characteristics during assembly. GAP PAD TGP 3000 is supplied with protective liners on both sides. The top side has reduced tack for ease of handling.



TYPICAL APPLICATIONS

- Processors
- Server S-RAMs
- Mass storage drives
- Wireline / wireless communications hardware
- Notebook computers
- BGA packages
- Power conversion

TYPICAL PROPERTIES OF CURED MATERIAL

Young's modulus is calculated using 0.01 in/min, step rate of strain with a sample size 0.79 inch² .

Physical Properties

Hardness, Shore 00, Thirty second delay value, ASTM D2240, Bulk rubber		30
Heat Capacity, ASTM E1269, J/g-K		1.0
Density, ASTM D792, g/cc		3.2
Flammability, UL 94		V-0
Young's Modulus, ASTM D575	kPa (psi)	180 (26)

Electrical Properties

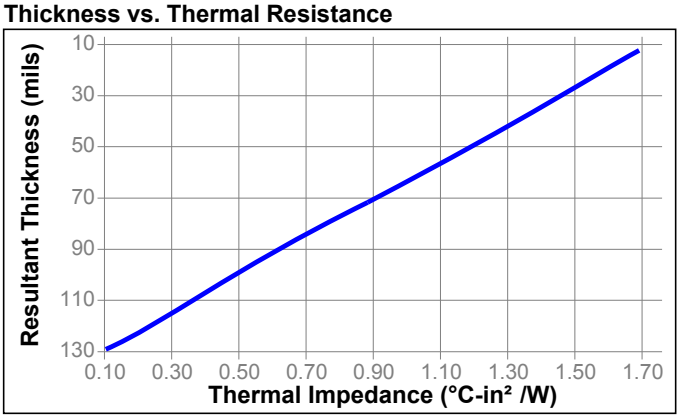
Dielectric Breakdown Voltage , ASTM D149, VAC	>3,000
Dielectric Constant, ASTM D150, 1,000Hz	7.0
Volume Resistivity, ASTM D257, ohm-meter	1×10^{9}

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K)	3.0

Note: Resultant thickness is defined as the final gap thickness of the application.

Thickness vs. Thermal Resistance



GENERAL INFORMATION

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

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.

CONFIGURATIONS AVAILABLE

GAP PAD TGP 3000 is available in the following configurations:

- Sheet form
- Die-Cut parts

Natural tack both sides with fiberglass.

STORAGE

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

Optimal Storage: 25ºC (±3), 50% RH (±10) for a 12 months shelf life. 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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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