



GAP PAD TGP 12000 ULM

May 2020

PRODUCT DESCRIPTION

A 12 W/m-K, extremely soft Gap Pad with exceptional thermal performance at low pressures.

Technology	Silicone
Appearance	Gray
Application	Thermal management, TIM (Thermal Interface Material)
Operating Temperature Range, Continuous or others	-60 to 200°C
UL Flammability Rating	UL 94 V-0

FEATURES AND BENEFITS

- Thermal Conductivity: 12 W/m-K
- High-compliance, low compression stress
- Ultra low modulus

GAP PAD TGP 12000ULM is an extremely softgap filling material rated at a thermal conductivity of 12.0 W/m-K. It is specially formulated for high performance applications requiring low assembly stress. The material offers exceptional thermal performance at low pressures due to the unique filler package and ultra low modulus resin formulation.

GAP PAD TGP 12000ULM is highly conformal to rough or irregular surfaces, allowing excellent wet-out at the interface. Protective liners are supplied on both sides allowing for ease of use.

TYPICAL APPLICATIONS

- Telecommunications (routers, switches, base stations)
- Optical transceivers
- ASICs and DSPs

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Hardness, Shore 000, ASTM D2240	68
Inherent Surface Tack	2
Density, ASTM D792, g/cc	3.1
Heat Capacity, ASTM E1269, J/g-K	0.7
Shelf life, days	180
Young's Modulus	kPa 103
	(psi) (15)

Electrical Properties

Volume Resistivity, ASTM D257, ohm-meter	1.5×10^{12}
Dielectric Constant, ASTM D150, 1,000Hz	8.4
Dielectric Breakdown Voltage: 0.04 inch sample, VAC	6,200

Thermal Properties

Thermal Conductivity, ASTM D5470, W/(m-K)	12
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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 12000 ULM is available in the following configurations:

Sheet size	8" x 8"
Standard Thicknesses	0.040, 0.060, 0.080, 0.100, 0.125 inch (1.0, 1.5, 2.0, 2.5, 3.18 mm)

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 (±3), 50% RH (±10) for a 180 days 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

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

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