

# Max-Therm Thermal Interface material -Thermal Pad

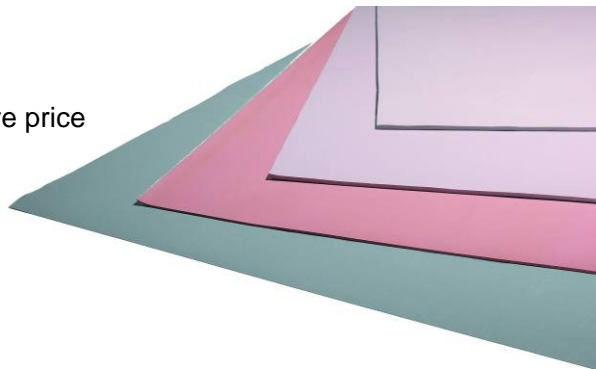
## GP2000 series

### General Usage:

GP2000 is a ceramic particles filled silicone rubber, which is good balance for thermal performance with competitive price and providing 1.2W thermal conductivity. It is used between heat sink and heat generating components. Its ultra soft proper enable filling air voids and rugged surface, and wetting out matting surfaces in order to efficiently transfer heat from components to heat sink

### Benefit:

- Continuous roll package rubber
- General Thermal conductivity with competitive price
- Ultra soft, highly compressible
- Good wetting
- Self tacky or additional PSA if required



### Typical Applications:

- Information products
- BGA
- Power module

### Typical Properties:

GP2000 series	Test method	GP2100	GP2150	GP2200	GP2250	GP2300	GP2500
<b>Construction &amp; Composition</b>		Silicone	Silicone	Silicone	Silicone	Silicone	Silicone
<b>Color</b>		Blue	Blue	Blue	Blue	Blue	Blue
<b>Thickness (mm)</b>		1	1.5	2	2.5	3	5
<b>Thickness Tolerance (mm)</b>		±10%	±10%	±10%	±10%	±10%	±10%
<b>Density (g/cc)</b>		2.60	2.60	2.60	2.60	2.60	2.60
<b>Hardness (Shore 00)</b>	<b>ASTM D 2240</b>	30-35	30-35	30-35	30-35	30-35	30-35
<b>Tensile Strength</b>	<b>ASTM D 638</b>	65 psi	65 psi	65 psi	65 psi	65 psi	65 psi
<b>Elongation (%)</b>	<b>ASTM D 412</b>	56	56	56	56	56	56
<b>Outgassing TML *Post Cured (%)</b>	<b>ASTM D 150</b>	0.07	0.07	0.07	0.07	0.07	0.07
<b>Outgassing CVCm *Post Cured (%)</b>		0.05	0.05	0.05	0.05	0.05	0.05
<b>UL Rating</b>		94V0	94V0	94V0	94V0	94V0	94V0
<b>Continuous Use Temp (°C)</b>	<b>TGA+DMA</b>	-40~200	-40~200	-40~200	-40~200	-40~200	-40~200
<b>Thermal Conductivity (W/mk)</b>	<b>ASTM 5470/E 1530</b>	1.2	1.2	1.2	1.2	1.2	1.2
<b>Thermal Impedance @10psi (°C-in²/W)</b>		1.57	2.04	2.48	2.91	3.17	4.51
<b>@69KPa(°C-cm²/W)</b>		10.13	13.20	16.10	18.85	20.45	28.93
<b>Thermal Expansion (ppm/C)</b>		150	150	150	150	150	150
<b>Dielectric Strength (Volts)</b>		>7,000	>7,000	>7,000	>7,000	>7,000	>7,000
<b>Volume Resistivity (ohm-cm)</b>	<b>ASTM D 257</b>	2×10 <sup>13</sup>	2×10 <sup>13</sup>	2×10 <sup>13</sup>	2×10 <sup>13</sup>	2×10 <sup>13</sup>	2×10 <sup>13</sup>
<b>Dielectric Constant @1MHz</b>	<b>ASTM D 150</b>	5.85	5.85	5.85	5.85	5.85	5.85

Thin series						
GP2000 series	Test method	GP2013	GP2025	GP2030	GP2050	GP2075
Construction & Composition		Silicone	Silicone	Silicone	Silicone	Silicone
Color		Blue	Blue	Blue	Blue	Blue
Thickness (mm)		0.13	0.25	0.3	0.5	0.75
Thickness Tolerance (mm)		±10%	±10%	±10%	±10%	±10%
Density (g/cc)		2.60	2.60	2.60	2.60	2.60
Hardness (Shore OO)	ASTM D 2240	65	65	45	45	45
Tensile Strength	ASTM D 638	N/A	N/A	65 psi	65 psi	65 psi
Elongation (%)	ASTM D 412	N/A	N/A	56	56	56
Outgassing TML *Post Cured (%)	ASTM D 150	0.07	0.07	0.07	0.07	0.07
Outgassing CVCM *Post Cured (%)		0.05	0.05	0.05	0.05	0.05
UL Rating		94V0	94V0	94V0	94V0	94V0
Continuous Use Temp (°C)	TGA+DMA	-40~200	-40~200	-40~200	-40~200	-40~200
Thermal Conductivity (W/mk)	ASTM 5470/E 1530	1.2	1.2	1.2	1.2	1.2
Thermal Impedance @10psi (°C-in <sup>2</sup> /W)		0.33	0.50	0.60	0.80	1.19
@69KPa(°C-cm <sup>2</sup> /W)		2.10	3.18	3.83	5.13	7.63
Thermal Expansion (ppm/C)		150	150	150	150	150
Dielectric Strength (Volts)		>7,000	>7,000	>7,000	>7,000	>7,000
Volume Resistivity (ohm-cm)	ASTM D 257	2x10 <sup>13</sup>	2x10 <sup>13</sup>	2x10 <sup>13</sup>	2x10 <sup>13</sup>	2x10 <sup>13</sup>
Dielectric Constant @1MHz	ASTM D 150	5.85	5.85	5.85	5.85	5.85

Thin series with Glass fabric						
GP2000G series	Test method	GP2013g	GP2025g	GP2030g	GP2050g	GP2075g
Construction & Composition		Silicone	Silicone	Silicone	Silicone	Silicone
Color		Blue	Blue	Blue	Blue	Blue
Thickness (mm)		0.13mm	0.25mm	0.3mm	0.50mm	0.75mm
Carrier		Glass Fabric	Glass Fabric	Glass Fabric	Glass Fabric	Glass Fabric
Thickness Tolerance (mm)		±10%	±10%	±10%	±10%	±10%
Density (g/cc)		2.60	2.60	2.60	2.60	2.60
Hardness (Shore OO)	ASTM D 2240	65	65	45	45	45
Tensile Strength	ASTM D 638	N/A	N/A	130psi	130psi	130psi
Elongation (%)	ASTM D 412	N/A	N/A	28	28	28
Outgassing TML *Post Cured (%)	ASTM D 150	0.07	0.07	0.07	0.07	0.07
Outgassing CVCM *Post Cured (%)		0.05	0.05	0.05	0.05	0.05
UL Rating		94V0	94V0	94V0	94V0	94V0
Continuous Use Temp (°C)	TGA+DMA	-40~200	-40~200	-40~200	-40~200	-40~200
Thermal Conductivity (W/mk)	ASTM 5470/E 1530	1.2	1.2	1.2	1.2	1.2
Thermal Impedance @10psi (°C-in <sup>2</sup> /W)		0.35	0.51	0.62	0.82	1.20
@69KPa(°C-cm <sup>2</sup> /W)		2.23	3.25	3.95	5.15	7.65
Thermal Expansion (ppm/C)		150	150	150	150	150
Dielectric Strength (Volts)		>4,000	>5,000	>5,000	>7,000	>7,000
Volume Resistivity (ohm-cm)	ASTM D 257	2x10 <sup>13</sup>	2x10 <sup>13</sup>	2x10 <sup>13</sup>	2x10 <sup>13</sup>	2x10 <sup>13</sup>
Dielectric Constant @1MHz	ASTM D 150	5.85	5.85	5.85	5.85	5.85

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