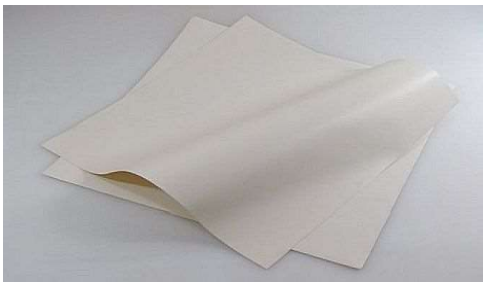
Glass-Fibre reinforced Silicone based Film / BG Series

Glass-fibre reinforced for a better mechanical stability

BG series is silicone based rubber - fibreglass reinforced, electrically insulating with exceptionally good heat-conducting Boron Nitride ceramics which has excellent long-term mechanical stability as well as excellent thermal conductivity. Due to its very soft surface properties, the material adapts very well to the contact surfaces, minimizing the thermal contact resistance and thus the overall thermal transfer resistance. The BG films are suitable for the production of pads under discrete TO - packages and for cuts of different shapes and belts. They are recommended for thermally & mechanically demanded applications required high electrical insulation, very high longevity and the associated high reliability.

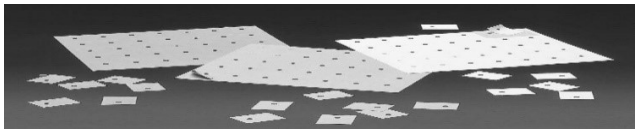


PROPERTIES	AVAILABILITY	APPLICATION EXAMPLES
High thermally conductive silicone based electrically insulated Boron-Nitride film with perfect mechanical stability, very long life and reliability. Ideal replacement of thermal grease + Mica under discrete TO – Packages and other non insulating parts.	Standard Sheets 440 x 320mm - Non tacky. One side self adhesive sheet in size 200 x 260 mm (higher Rth). Pads in standard TO – discrete packages, Die cut parts and various formats on a request	Heat Transfer of MOSFET, IGBT, Diode, Thyristor, Hybrid modules in all discreate semiconductors in TO and non-insulated packages ower power supplies, servo drive, UPS, controller and inverters, battery units, All inducting heating etc.

Properties	Unit	Test method	20-BG	30-BG	45-BG	80-BG
Material Silicon – glass fibre / **Filler**		-	/ Boron Nitride	/ Boron Nitride	/ Boron Nitride	/ Boron Nitride
Colour		-	White	White	White	White
Thickness	**mm**	-	**0,20** (+/-0,05)	**0,30** (+0,1/-0)	**0,45** (+/-0,05)	**0,80** (+0,1/-0)
Thermal and Electrical						
Thermal resistance (TO-3P)	**°C/W**	Shin-Etsu Method	0,11	0,26	0,35	0,46
Thermal resistance (TO-3P) / **1-side AD**	**°C/W**	Shin-Etsu Method	0,49	0,73	0,85	0,92
Thermal conductivity	**W/m*K**	ASTM E1530	5,00	5,00	5,00	5,00
Operating temperature	**°C**		-60 °C to 200 °C	-60 °C to 200 °C	-60 °C to 200 °C	-60 °C to 200 °C
Breakdown voltage (Voltage ramp 1000V/s)	**V(AC)**	JIS K 6249	7 000	12 000	16 000	21 000
Breakdown voltage (V level until breakdown)	**V(AC)**	JIS K 6249	2 000	5 000	6 000	9 000
Volume resistivity	**Ωcm**	JIS K 6249	$8{,}0 \times 10^{12}$	$10{,}0 \times 10^{12}$	$9{,}0 \times 10^{12}$	$11{,}0 \times 10^{12}$
Dielectric constant	**1kHz**	JIS K 6249	3,0	3,1	2,9	2,9
Dielectric dissipation factor	**1kHz**	JIS K 6249	2×10^{-3}	2×10^{-3}	2×10^{-3}	5×10^{-3}
Mechanical						
Hardness Durometer A	**Shore A**	JIS K 6249	90	90	90	90
Tear strength (kN/m)	**(kN/m)**	JIS K 6249	197	223	209	54
Tensile strength	**MPa**	JIS K 6249	51	50	49	14
Density at 23°C	**g/cm³**	JIS K 6249	2,6	2,6	2,6	2,6
Outgassing (LMW Siloxane) sum D3-10	**ppm**	Shin-Etsu Method	=<10	=<10	=<10	=<10
Clean, fast and process-safe assembly		YES				
Flame retardance	**UL 94**	V-0				

Test Methods: All data without warranty and subject to change. Please contact us for further data and information.

ISO 9001 14001 RoHS REACH UL



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