

THERMAL CONDUCTIVE GAPFILLER

F12



F12 is ideal for cost sensitive applications requiring moderate thermal performance and is suitable to interface large surface areas.

F12 is a gapfiller that is robust, very flexible, easy to handle and has a thermal conductivity of 1.2 W/mK. F12 has exceptional temperature stability and vibration dampening properties making it suitable for a wide range of rugged applications. F12 is used widely in automotive, LED, motor drive, PSUs applications plus many more.

Properties	Unit	F12	F12	Test Method
Base material	-	Reinforced Ceramic filled silicone elastomer	Ceramic filled silicone elastomer	-
Tested thickness	mm	0.5	1.0	-
Color	-	Light Green	Light Green	Visual
Thickness tolerance	%	10	10	-
Thermal Properties				
Thermal conductivity through	W/mK	1.2	1.2	ASTM D5470
Operating temperature	°C	-40 to 160	-40 to 160	-
Total thermal resistance @ 10 psi		0.54°C-in ² /W	0.98°C-in ² /W	ASTM D5470
Coefficient Thermal Expansion	ppm/C	600	600	IPC-TM-650 2.4.24
Electrical Properties				
Dielectric Constant @ 10GHz	-	4.5	4.5	ASTM D5470
Mechanical Properties				
Hardness	Shore 00	50	25	ASTM D2240
Outgassing CVCM	%	0.10	0.10	ASTM E595
Outgassing TML	%	0.56	0.56	ASTM E595
Density	g/cm ³	1.78	1.78	Helium Pycnometer
Volume resistivity	ohm-cm	10 ¹³	10 ¹³	ASTM D257
Physical Properties				
Flame rating	UL94	94 V0	94 V0	-
Standard thicknesses	mm	0.5 / 1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 4.0 / 5.0	0.5 / 1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 4.0 / 5.0	-

F12-50

F = Filler / 12 = 1.2W/mK / 50 = 0.50mm thickness