HIGH THERMAL CONDUCTIVITY

F18

F18 is a very soft and conformable gap filler that delivers exceptional shock absorption properties as well as good thermal performance.

F18 is naturally tacky and its inherent softness adheres to imperfectly mating surfaces, obviating micro-air voids at the interface thereby reducing thermal resistance to an absolute minimum.

F18 maintains optimal thermal performance over a wide temperature range. The material delivers high dielectric strength for electrical insulation.

F18 is available as custom die-cut shapes and forms, is one sided non tacky tape and is simple and easy to apply and handle.

Properties	Unit	F18	Test Method
Base material		Ceramic filled silicone elastomer	
Tested thickness	mm	1.0	
Color		Blue	Visual
Thickness tolerance	%	10	
Thermal Properties			
Thermal conductivity through	W/mK	1.8	ASTM D5470
Operating temperature	°C	-40 / 150	-
Electrical Properties			
Breakdown voltage	kV	12.5	JIS K 6249
Dielectric Constant @ 50Hz	-	5.2	JIS K 6249
Dielectric Constant @ 1KHz	-	3.7	JIS K 6249
Dielectric dissipation factor @ 50Hz	-	0.115	JIS K 6249
Dielectric dissipation factor @ 1KHz	-	0.057	JIS K 6249
Mechanical Properties			
Tensile strength	Mpa	0.15	JIS K 6249
Elongation	%	350	JIS K 6249
Specific gravity		1.7	JIS K 6249
Compression set	%	49	JIS K 6249
Volume resistivity	Ω-cm	$8.7X10^{13}$	JIS K 6249
Physical Properties			
Flame rating	UL94	VO	-
Standard thicknesses	mm	1 up to 5	-

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Ordering example:

F18-100

F = Filler / 18 = 1.8W/mK / 100 = 1.0mm thickness

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