

Thermasil BNp

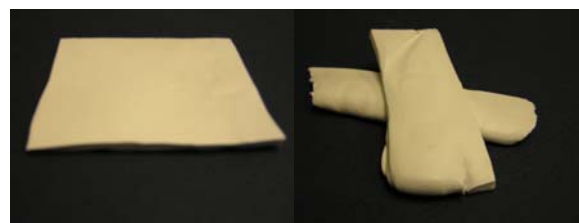
Product Description:

American Standard Circuits, Inc. (ASC) recently developed new materials and packaging solutions to efficiently manage the heat generated during the electronic performance of devices in a printed circuit board (PCB) assembly.

The heat generated in electronic device circuit assemblies during operation can be effectively dissipated by a judicious selection of material, packaging concept, and design of the PCB assembly. ASC has the technical experience and capabilities to manufacture customer-specific thermally conductive interface materials, bond the circuitry layer with it to the heat sink laminate per the customer's requirements, machine complex heat sink shapes, and produce the PCBs of any complexity quickly.

ASC has developed and applied for a patent for a high-temperature stable, thermally conductive putty as a gap filler. This putty can be formed as a conformal pad to dissipate heat and can be produced in any thickness between 4 and 250 mil. The thermal conductivity can be tailored to suit the customer's specific requirements.

ASC provides the following thermal management solutions for the automotive and high frequency telecommunication industries. As all of these interface materials are elastomeric, they easily compensate the CTE mismatch between the heat sink and the PCB layer. Thus, the bonded PCB assembly can go through multiple reflow cycles without any risk of bond failure. All of these materials can function in a wide range of temperature, from -70 to +600 F:



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No.	Property	Value	Reference
1	Dielectric Performance Proof Test	5 kV	ASTM D-149-97
	500V/sec Ramp, 5 sec hold	(20 mil thick)	
2	Breakdown Voltage	25 kV	ASTM D-149-97
		(20 mil thick)	
3	Dielectric Constant	3.5 (+/-) 0.15	ASTM D-150-98
4	Thermal Conductivity, W/mK	3.6	ASTM C-408-82
5	Thickness Range, Mil	4 to 250	Optical
		Can be customized to putty form also	
6	Temperature Stability, short term	-70 F TO 600 F	
7	Applications	High performance CPUs, LEDs, Automotives	
		Power Modules, DC/DC Converters, etc.	
8	Peel Strength lb/inch	15-17	ASTM 2861
9	CTE	30 to 60 ppm / C	
10	Conformal Thermasil		
11	Applications	For bonding complex shapes (Putty Type)	
12	Flame Retardance	Pass	UL94V0
13	Elongation %	140 – 150	ASTM D412
14	Tensile Strength, PSI	1020	ASTM D412