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Thermally Conductive Closed Cell Silicone Sponge 72-TCD

Product Description:

The 72-TCD series is a thermally conductive closed cell silicone sponge rubber. This material offers thermal conductivity along with electrical isolation. It possesses excellent conformability to irregular surfaces and a clean release from most materials. It comes in multiple thicknesses to fill various air gap heights and its cellular structure provides extremely compliant gap filler. This material is recommended to fill the needs of an unsupported thermal transfer material in applications requiring clean release, enhanced thermal performance by filling air gaps, electrical isolation, and vibration cushioning.

Common Applications:

Thermally conductive silicone is a superior choice for gasketing and cushioning applications requiring critical thermal transfer and sealing. It can also be used for gaskets, seals, press pads, computers, telecommunication, automotive electronics, military, medical, heat pipe assemblies, CD ROM cooling, thermal insulating, thermal shielding, heat transfer, decal transfer, print presses, and vibration mounts.

Property	Test Method	Typical Values		
Color	Visual	Light Green		
Thickness, nominal (in.)	ASTM D374	1/32, 1/16, 3/32, 1/8, 3/16, 1/4		
Thermal Conductivity (W/mk)	ASTM E1530	Compression %	@ 1/8"	@ 1/16"
		10	0.36	0.36
		30	0.52	0.46
		50	0.86	0.57
Thermal Impedance (°C in.²/W)	ASTM E1530	Compression %	@1/8"	@1/16"
		10	13 (86)	5.5 (36)
		30	9 (57	3.5 (23)
		50	5 (34)	2 (13)
Tensile Strength (psi)	ASTM D412	120 (828)		
Elongation (%)	ASTM D412	150		
Hardness (Shore A)	ASTM D2240	13		
Dielectric Strength (volts/mil)	ASTM D149	100		
Compression Deflection (@25%, psi)	ASTM D1056	18 (125)		
Compression set	ASTM D1056	15		
Density (lbs/ft. ³) (kg/m ³)	ASTM D297	69 (1105)		
Operating Temp (°F)		-80 to 400		
UL Listing Recognition	UL 94	V-1 down to 1/8" thick		

TYPICAL PROPERTIES

Note: Tests, claims representations and descriptions regarding flammability are based on standard laboratory tests and, as such, may not be reliable for determining, evaluating, predicting or describing the flammability of burning characteristics under actual fire conditions, whether used alone or in combination with other products. Accordingly, each potential user should make an individual determination whether the flammability or burning characteristics of the product are suitable for the purpose intended by the user.