

## TCS 3000

Highly Conformable, Thermally Conductive, Gap Filling Material

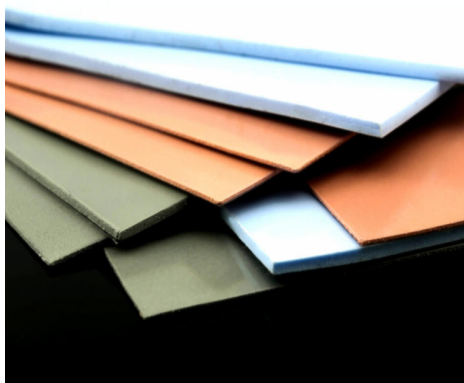
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## PRODUCT DESCRIPTION

Highly Conformable, Thermally Conductive, Gap Filling Material

## FEATURES AND BENEFITS

- Thermal conductivity: 3.0 W/m-K
- Low thermal resistance at very low pressures
- Highly conformable, low hardness
- Designed for low-stress applications



TCS 3000 is recommended for low-stress applications that require a highly thermally conductive interfacial material. The highly conformable nature of the material allows the pad to fill in air voids and air gaps between PC boards and heat sinks or metal chassis with stepped topography, rough surfaces and high stack-up tolerances.

TCS 3000 is offered with inherent natural tack on both sides of the material allowing for stick-in-place characteristics during application assembly. The material is supplied with protective liners on both sides. The top side has reduced tack for ease of handling.

*Note: To build a part number, visit our website at [www.bclihe.com](http://www.bclihe.com).*

## TYPICAL PROPERTIES OF TCS 3000

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD	
Color	Blue	Blue	Visual	
Reinforcement Carrier	-	-	—	
Thickness (inch) / (mm)	0.020 to 0.125	0.508 to 3.175	ASTM D374	
Inherent Surface Tack (I side)	2	2	—	
Density (Bulk Rubber) (g/cc)	3.2	3.2	ASTM D792	
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269	
Hardness (Bulk Rubber) (Shore 00) (1)	45	45	ASTM D2240	
Young's Modulus (psi) / (kPa) (2)	45	310	ASTM D575	
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—	
ELECTRICAL				
Dielectric Breakdown Voltage (Vac)	>5000	>5000	ASTM D149	
Dielectric Constant (1000 Hz)	6.0	6.0	ASTM D150	
Volume Resistivity (Ohm-meter)	10 <sup>11</sup>	10 <sup>11</sup>	ASTM D257	
Flame Rating	V-O	V-O	U.L. 94	
THERMAL				
Thermal Conductivity (W/m-K)	2.0	2.0	ASTM D5470	
THERMAL PERFORMANCE vs. STRAIN				
	Deflection (% strain)	10	20	30
	Thermal Impedance (°C-in²/W) 0.040" (3)	0.37	0.31	0.29
1) Thirty second delay value Shore 00 hardness scale. 2) Young's Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch². 3) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.				

## TYPICAL APPLICATIONS INCLUDE

- Power electronics DC/DC; 1/4, 1/2, full bricks, etc.
- Mass storage devices
- Graphics card/processor/ASIC
- Wireline/wireless communications hardware
- Automotive engine/transmission controls

## CONFIGURATIONS AVAILABLE

- Sheet form and die-cut parts