

## Key Features and Benefits

- Achieves low thermal resistance under low pressure
- Low hardness with excellent conformability
- Superior resistance to high and low temperatures, outstanding weatherability, radiation resistance, and exceptional dielectric properties
- Excellent chemical and mechanical stability
- Low stress, more effectively protecting electronic components

## Description

PAKCOOL® TP-220 thermally conductive pads are designed with high thermal conductivity, flexibility and elasticity to meet the diverse needs of thermal management. This series of products offers a wide range of thermal conductivities and is suitable for various applications. PAKCOOL® TP-220 is widely used in communication equipment for its extremely low oil permeability. Under moderate application pressure, PAKCOOL® TP-220 series production can fill the air gaps between components and their heat-sinks and enhance heat transfer. PAKCOOL® TP-220 is electrical insulation and has high thermal conductivity at pressures ranging from 20 to 100 psi (0.14 to 0.69 MPa). Products can be customized to meet customer's special requirements.

The surface of PAKCOOL® TP-220 possesses a certain level of tackiness. This feature eliminates the need for other adhesives that could affect thermal performance, facilitating easier mass production processing. All pads are supplied with an easily removable dust-proof film on both sides, enhancing their usability and maintaining cleanliness.

## Applications

- LED
- Power modules
- Integrated chips
- Automotive Electronics
- Communication devices
- Computers and Accessories

## Technical Parameters

Typical Properties	TP-220	Test Methods
Color	gray	Visual
Thermal Conductivity (W/m·K)	2.0	ASTM D5470
Thermal Impedance @20psi,0.5mm (K-in <sup>2</sup> /W)	0.80	ASTM D5470
Thickness* (mm)	0.3—5.0	ASTM D374
Density (g/cm <sup>3</sup> )	2.83±0.05	ASTM D792
Hardness (Shore OO)	50±10	ASTM D2240
Tensile Strength (Psi)	≥40	ASTM D412
Volume Resistivity (Ω·cm)	≥1.0×10 <sup>13</sup>	ASTM D257
Dielectric Strength (kV/mm)	≥12	ASTM D149
Dielectric Constant (100KHz)	5.5	ASTM D150
UL Flammability Rating	V-0	UL 94
Continuous Use Temperature (°C)	-40 ~ +200	--
*Standard Thickness (mm): 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5		

Note: Data is for guidance only and should not be used as product specifications.

## Configuration

- Sheet form or die-cut form
- without pressure sensitive adhesive
- Standard dimension for sheet is 200mm × 400mm
- Custom dimensions are available

## Storage

- Store in a cool, dry place out of direct sunlight
- Suggest the shelf-time not more than 24 months

The data of this specification are obtained under laboratory conditions. However, because of the difference of use environment, process and so on, it can not guarantee the correctness and applicability of the product in some usage and use. When using, be sure to test to confirm the product suitable for your purpose. If you have any problems in using this product, please contact our technical department. We will do our best to help you.