



## Features:

- KOOL-PADS offer a low cost alternative to all other types of thermally conductive insulators constructed from a thermally conductive silicone rubber compound coated onto a layer of woven glassfibre, they provide a strong flexible and clean insulator, which will not crack, age or permit contamination.
- Used mainly between heatsinks and semiconductors, KOOL-PADS soft pliable surfaces allow consistent and efficient heat transfer while maintaining good electrical insulation when replacing mica and grease, KOOL-PADS will allow reduced assembly through ease of application they contain no organic materials, will not support fungus growth and resist most cleaning fluids KOOL-PADS.

## Specifications:

### Adhesive coating:

KOOL-PAD insulators are available with pressure sensitive adhesive which is an assembly aid and does not affect the wide operating temperature range.

### Custom and standard shapes:

Materials are available from stock in most standard outlines all materials are available for custom cutting with moderate tool charges and quick delivery sheets.

### Mounting pressures:

Typical mounting pressures are 21-42 Kg/CM<sup>2</sup> this is achieved by using a torque of 0.4-0.7 Nm on the transistor mounting screw, depending upon package size most clip mounting methods provide a lower pressure which will result in a higher thermal resistance.

### Breakdown voltage:

All our insulating materials are tested in-house to the ASTM D149 procedure for determining dielectric strength and do not involve punched holes in the test sample.

When screw mounting a semiconductor with nut, bolt and insulating bush there is a danger of flash-through from the underside of the semiconductor to the heatsink on the outside of the insulating bush depending on the insulator thickness and other mechanical factors this flash-through could be as low as 700 volts should your flash test requirements be higher then we suggest the use of mounting clips or thermaflex contact our technical department for advice.

### Plastic encapsulated semiconductors:

If electrical insulation is not required particularly when using plastic encapsulated devices then a very much higher thermal conductance can be achieved by using ZEMREX CM20 pads.

## Typical Properties of KOOL-PADS

Part Prefix Code	K177
Thickness (mm)	0.177 ±0.02
Breakdown Voltage 50Hz RMS	
Normal	4000
Moist	2000
Approximate Thermal Resistance (TO-3 Transistor)°C/Watt	0.40
Thermal Conductivity W/°Km	0.710
Hardness, Shore Micro	85 ±4
Specific Gravity	2.0 to 2.1
Elongation Percent	4
Continuous Use Temperature °C	- 60 to + 180
Colour	Grey

## Part Number

Description	Part Number
Insulating Kit	K177-NA-403+BQ35

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