THERMAL CONDUCTIVITY
(W/m·°K)

5.0

electrically insulating

Thermally conductive soft-silicone KU-TXE

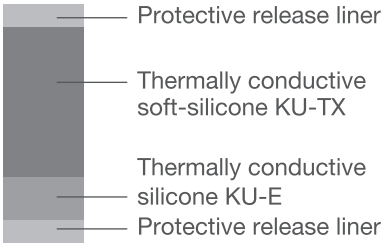
HEATPAD® KU-TXE is a soft-silicone interface material filled with thermally conductive ceramics for excellent thermal conductivity, dielectric strength and elasticity. KU-TXE meets the highest requirements regarding heat dissipation. Total thermal resistance is minimized by its application.

KU-TXE is laminated with KU-E material on one side (non-fiberglass reinforced version of KU-EGF) for mechanical stability and is self-adhesive on the other side.

PROPERTIES

- Superior thermal conductivity
- Very high dielectric strength
- Very soft and flexible
- Self-adhesive on one side
- Clean and easy mounting, high process reliability
- KU-E laminate reinforced
- UL flammability rating: UL 94 V0

CONSTRUCTION



PART	KU-	TXE 50	TXE 100	TXE 200	TXE 300
GENERAL PROPERTIES					
Material		Soft silicone with KU-E laminate reinforcement			
Filler		Thermally conductive ceramic			
Colour (Soft silicone / Laminate)		Grey / light grey			
Gauge	mm	0.5	1.0	2.0	3.0
Outgassing (LMW Siloxane)	ppm	∑ D3-10 = 240 / ∑ D11-20 = 450			
MECHANICAL PROPERTIES					
Tensile strength	MPa	0.80	0.50	0.46	0.44
Hardness (Shore A)		29	29	29	29
Hardness (Shore 00)		74	74	74	74
ELECTRICAL PROPERTIES					
Breakdown voltage (Voltage ramp) [1]	V (AC)	11000	21000	> 21000	> 21000
Breakdown voltage (Voltage steps) [2]	V (AC)	8000	20000	> 20000	> 20000
Volume resistivity	Ωm	2.3×10^{10}	5.1×10^{10}	1.2×10^{10}	1.1×10^{10}
Flammability rating		UL 94 V0	UL 94 V0	UL 94 V0	UL 94 V0
THERMAL PROPERTIES					
Thermal conductivity	W/mK	5.0	5.0	5.0	5.0
Thermal resistance (inch²)	°C/W	0.27	0.48	0.90	1.32
Operating temperature	°C	-60 to +180	-60 to +180	-60 to +180	-60 to +180

For explanatory notes regarding voltage ramp / step, see page 136

[1] Voltage ramp 1000 V/s

[2] Step-by-step voltage increments until dielectric breakdown

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Image may differ from the original product.

PRODUCT AVAILABILITY

- Stamped and cut to customer specifications
- In sheet form 300 mm x 400 mm

ON REQUEST

- Other material gauges
- Intermediate gauges

PRESSURE DEPENDENCE

Thermal resistance vs. mounting pressure