

#### **FEATURES**

- Thermally conductive graphite interface material
- Great thermal conductivity
- Black in colour
- Hardness 80 ShoreA
- Easy to use

# Thermal Interface Sheet, Graphite, 10W/m-K, 150 x 150mm 0.5mm, Self-Adhesive

RS Stock No.: 794-3985



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.



### **Product Description**

RS PRO range of thermally conductive graphite interface material heat pads which are available in plain, 1 sided adhesive and PET coated.

Options for these thermal pads include:

7943979 - 50x150x0.16 mm, no adhesive

7943973 - 150x150x0.16 mm, 1-side adhesive

7943982 - 150x150x0.50 mm, no adhesive

7943985 - 150x150x0.50 mm, 1-side adhesive

7943989 - 150x150x0.50 mm, PET coated, no adhesive

7943998 - 150x150x0.80 mm, no adhesive

7943991 - 150x150x0.80 mm, 1-side adhesive

7943995 - 150x150x0.80 mm, PET coated, no adhesive

#### **General Specifications**

Material	Graphite
Self-Adhesive	Yes
Colour	Black
Applications	Electronics components; Flat panel displays; LED (light emitting diode) displays; Engine control units; Computer hard drives; Wireless communication hardware
Flame Rating	V0 UL94
Shelf Life	24months

#### **Electrical Specifications**

Dielectric Strength	12kV/mm	
Dielectric Constant at 1kHz	5	
Volume Resistivity	10 <sup>10</sup> ohm.cm	
Insulation Strength	12kV/mm	



## **Mechanical Specifications**

Dimensions	150x150mm
Thickness	0.5mm
Length	150mm
Width	150mm
Diameter	75mm
Thermal Conductivity	10W/(m.K)
Hardness	Shore A 80
Thermal Impedance	<0.28°C-in²/W
Specific Gravity	3.4g/cm <sup>3</sup>
Weight Loss	<1%
Elongation	50%
Tensile Strength	15Kgf/cm <sup>2</sup>
Density	3.3g/cm <sup>3</sup>
Deflection At 10 psi	3%
Young's Modulus	24N/cm <sup>2</sup>
Compression Ratio at 1mm, 40psi	40%
Thermal Resistance	0.8W/m.K
Coefficient Of Thermal Expansion	250ppm/K
Dissipation Factor At 1000kHz	0.013

## **Operation Environment Specifications**

Minimum Operating Temperature	-50°C
Maximum Operating Temperature	150°C

## **Approvals**

Compliance/Certifications	CE / UR / cUR
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Property	Т	T-1	P-1	Unit
Туре	Graphite	Graphite + adhesive	Graphite + PET	-
Colour	Black	Black Black Black		
Thermal Conducvity	X-Y,350	X-Y,350	X-Y,350	W/mK
	Z,13	Z,10	Z,8	W/mK
Flammability Rating	V-0	V-0	V-0	UL 94
Specific Gravity	1.3 - 1.5			g/cm3
Graphite Contained	99.5	99.5	99.5	%
Hardness	80	80	80	Shore A

ADHESIVE				
Item	Unit	Value	Test Method	
180° peel strength	N/	≥6	GB/T2792-1998	
Initial bonding strength	Kg/inch	≥8	GB/T2792-1998	
Holding stick strength	h/1gk/	≥24	GB/T2792-1998	
Temperature resistance	°C	-50150	VIF-W1-Y6-II	
Thermal conductivity	W/MK	10		

Part No.	Description	Property
7943979	150x150x0.16mm, no adhesive	Т
7943973	150x150x0.16mm, 1-side adhesive	T-1
7943982	150x150x0.50mm, no adhesive	Т
7943985	150x150x0.50mm, 1-side adhesive	T-1
7943989	150x150x0.50mm, PET coated, no adhesive	P-1
7943998	150x150x0.80mm, no adhesive	Т
7943991	150x150x0.80mm, 1-side adhesive	T-1
7943995	150x150x0.80mm, PET coated, no adhesive	P-1