

# H48-6 Thermal Conductive Pad

Version 4.270318

## Thermal Conductive Pad

H48-6 is a silicone based thermal interface pad which offers a good combination of low thermal impedance, good compressibility and a high dielectric breakdown voltage. H48-6 is available in numerous different formats such as custom die cuts or standard sheets. Additionally, both custom die cut pads and standard sheets can be supplied with either one of two side thermally conductive adhesive applied for greater ease of manufacture.

## Features

- Good thermal conductivity
- Ultra-soft and high compressibility
- Natural tack
- Easy to assemble
- Good insulator
- Shock and vibration absorber

## Applications

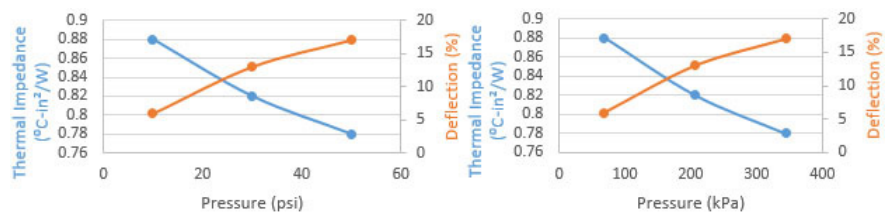
Electronic components: IC, CPU, MOS  
 LED - M/B, P/S, Heat Sink  
 LCD, TV, Notebook PC, PC Telecom Device, Wireless Hub, etc.  
 DDR II Module, DVD Applications, Hand-set applications, etc.

## Properties

- ✓ REACH Compliant
- ✓ ROHS Compliant

Property	H48-6	Unit	Tolerance	Test Method
Colour	Dark Grey	-	-	Visual
Thickness (Available thickness range)	0.3 - 10	mm	-	ASTM D374
	0.0118 - 0.787	inch	-	ASTM D374
Thermal Conductivity	3.2	W/mK	±0.3	ASTM D5470
Flammability Rating	V-0	-	-	UL 94
Dielectric Breakdown Voltage	2	kV/mm	±0.2	ASTM D149
Weight Loss	<1	%	-	ASTM E595
Density	2.42	g/cm <sup>3</sup>	±0.2	ASTM D792
Working Temperature	-40 to 200	°C	-	-
Volume Resistance	>10 <sup>11</sup>	Ohm-cm	-	ASTM D257
Elongation	130	%	-	ASTM D412
Tensile Strength	8	Kgf/cm <sup>2</sup>	-	ASTM D412
Hardness	30	Shore A	±10	ASTM D2240
Shelf Life	36	months	-	-
Shelf Life with adhesive (can be requalified for a further 12)	12	months	-	-

## Thermal Impedance vs Pressure vs Deflection



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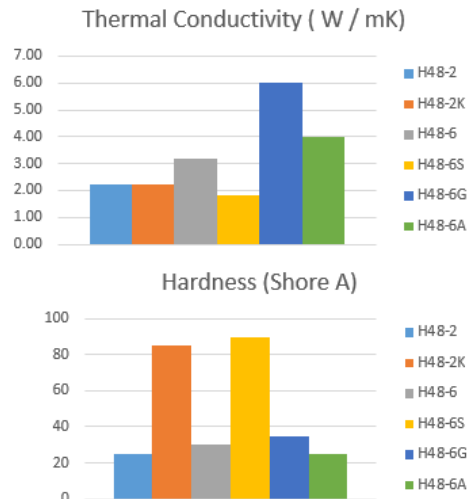
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## Standard Weights & Dimensional Tolerance

Size	Thickness (mm)	Weights (g)											
		0.30	0.50	0.80	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
100x100	100x100	7.29	12.15	19.44	24.30	36.45	48.60	60.75	72.90	85.05	97.20	109.35	121.50
	150x150	16.40	27.34	43.74	54.68	82.01	109.35	136.69	164.03	191.36	218.70	246.04	273.38
	300x300	65.61	109.35	174.96	218.70	328.05	437.40	546.75	656.10	765.45	874.80	984.15	1,093.50
	320x320	74.65	124.42	199.07	248.83	373.25	497.66	622.08	746.50	870.91	995.33	1,119.74	1,244.16

Size	Thickness (mm)	Weights (g)									
		5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00
100x100	100x100	133.65	145.80	157.95	170.10	182.25	194.40	206.55	218.70	230.85	243.00
	150x150	300.71	328.05	355.39	382.73	410.06	437.40	464.74	492.08	519.41	546.75
	300x300	1,202.85	1,312.20	1,421.55	1,530.90	1,640.25	1,749.60	1,858.95	1,968.30	2,077.65	2,187.00
	320x320	1,368.58	1,492.99	1,617.41	1,741.82	1,866.24	1,990.66	2,115.07	2,239.49	2,363.90	2,488.32

## Data



Die-Cut Thickness Tolerances	Thickness (mm)	Tolerance (mm)
	0.3	±0.03
	0.5	±0.05
	0.8	±0.08
	1.0	±0.1
	1.2	±0.12
	1.5	±0.15
	2.0	±0.2
	2.5 - 3.5	±0.25
	4.0 - 4.5	±0.3
	5.0	±0.35
	6.0 - 8.0	±0.4
9.0	±0.45	
10.0	±0.5	
>10.0	±0.5	

\* Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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