

PTM7950

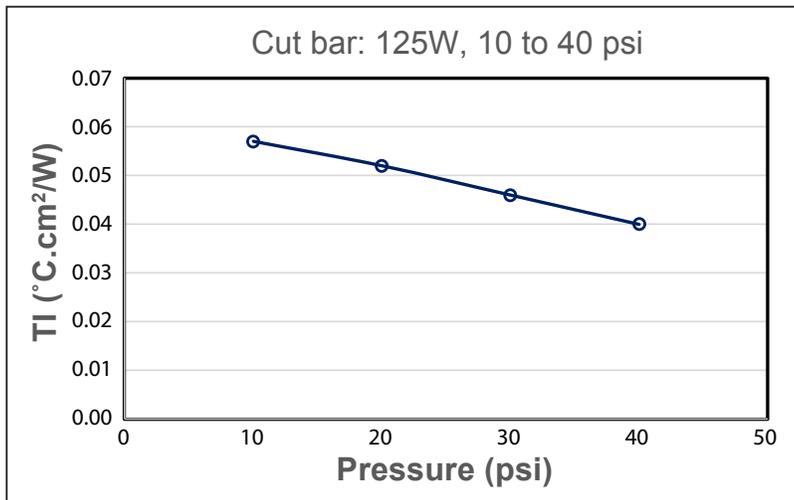
High Thermal Conductivity Phase Change Material

Honeywell's PTM7950 series, a super highly thermally conductive Phase Change Material (PCM) in both pad and paste formats, is designed to minimize thermal resistance at interfaces, maintain excellent performance through reliability testing, and provide scalable application at a competitive cost.

Based on a novel polymer PCM system, this material exhibits excellent interface wettability during typical operating temperature ranges, resulting in extremely low surface contact resistance.

A proprietary material provides superior reliability (pass 150°C baking 1000 hours, T/C-B 1000 cycles) and maintains low thermal impedance (<0.04°Ccm²/W @ no shim), making the PTM7950 series desirable for high performance integrated circuit devices.

PTM7950 Thermal Impedance (TI) vs. Pressure



PTM7950 is ideal for high performance IT/Enterprise computing applications.

Honeywell TIMs Serve Multiple Applications



Automotive & Power



IT/Enterprise



Telecomm



Consumer Electronics



High-Brightness LED

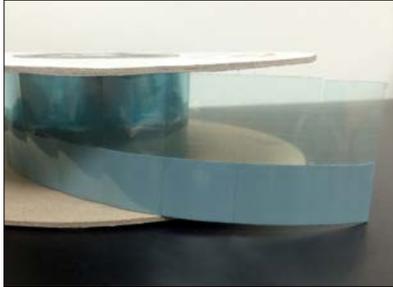
FEATURES & BENEFITS

- High performance filler and polymer technology
- Phase change at 45°C
- Highly conductive filler loading to optimize performance
- Superior handling and reworkability
- Superior reliable thermal performance
- Available in both pad and paste formats

PTM7950 Technical Information

Physical Properties	Unit	Test Method	PTM7950	PTM7950-SP
Thermal Conductivity	W/m·K	ASTM D5470	8.5	8.5
Thermal Impedance @ no shim	°C·cm ² /W	ASTM D5470 Modified	0.04	0.04
Specific Gravity	g/cm ³	ASTM D792	2.8	2.5
Viscosity	Pa·s @ 2s ⁻¹ , 25 °C	Rheometer HON	NA	21
Volume Resistivity	Ω·cm	ASTM D257-700	2.1x10 ¹⁴	2.1x10 ¹⁴
Thickness Range	mm		0.25	NA

*Typical property data values should not be used as specifications



PTM7950 pad format. It is also available in paste/printable format.

STORAGE CONDITION

Refer to product label.

THERMAL IMPEDANCE POST RELIABILITY (ASTM E1461)

End of Line	0.04 °C·cm ² /W
Bake 150 °C, 1000 h	0.04 °C·cm ² /W
Double 85, 1000h	0.04 °C·cm ² /W
Temperature Cycling "B" (-55 °C to +125 °C, 1000 cycles)	0.045 °C·cm ² /W

Product Use

Clamping pressure and temperature are suggested to achieve a minimum bond line thickness of the thermal interface material, typically less than 1.5 mil (0.038mm) for best performance. The material must go through the phase change temperature to exhibit entitlement performance.

More Honeywell TIMs

PTM7950 is part of Honeywell's TIM Solutions family of phase change materials. Whatever the thermal challenge, we offer a TIM product that provides just the right characteristics for your application. Find out more about:

PTM7000 Series	PTM6000 Series
PTM5000 Series	PCM45F Series
HT Series	LTM Series



RESPONSIBLE CARE
OUR COMMITMENT TO SUSTAINABILITY

Honeywell Electronic Materials

USA: 1-509-252-2102
 China: 86-21-28942481
 Germany: 49-5137-999-9199
 Japan: 81-3-6730-7092
 Korea: 82-2-3483-5076
 Singapore: 65-6580-3593

Although all statements and information contained herein are believed to be accurate and reliable, they are presented without guarantee or warranty of any kind, express or implied. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liability for use of the information and results obtained. Statements or suggestions concerning the use of materials and processes are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that all toxicity data and safety measures are indicated herein or that other measures may not be required.

DS.0318Rev2
 ©2022 Honeywell International Inc.

Honeywell