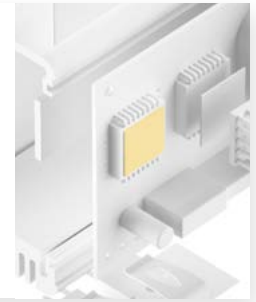


# ALUMINUM FILM/PHASE CHANGE TPC-R-AL HALA

phase change coating

TPC-R-AL is an aluminum film which is coated with a thermally conductive phase changing compound on both sides thus optimising the thermal path e.g. between electronic packages and heat sinks. During warm-up the phase change coating starts filling up surface-specific roughnesses and unevennesses and expels any air enclosures from micro structures even at low pressure. The wetting of the contact areas is further on improved by volumetric material expansion at increasing temperature. Thus the total thermal resistance is minimised. The aluminum carrier effects high mechanical stability and easy handling.



Release 02 / 2022

### PROPERTIES

- Optimal thermal contact
- Silicone-free
- Process reliable coating thickness
- Ideal alternative and replacement of messy thermal grease

### AVAILABILITY

- Sheet 305 x 610 mm or 457 x 610 mm
- Roll 292 or 445 mm x 152 m
- Non tacky (TPC-RXXX-AL)
- Tacky on one side with PSA (TPC-RXXX-AL-A1)
- With adhesive strips on request
- Optional AL (25 / 51 / 76 / 127 / 254 µm), phase change coating (13 / 25 / 51 µm)
- Die cut or kiss cut parts

### APPLICATION EXAMPLES

- Thermal link of:
- MOSFETs or IGBTs
  - Insulated diodes
  - Power modules
  - CPUs
- For use in Servo drive control units / Traction drives / Automation appliances / Micro-electronics

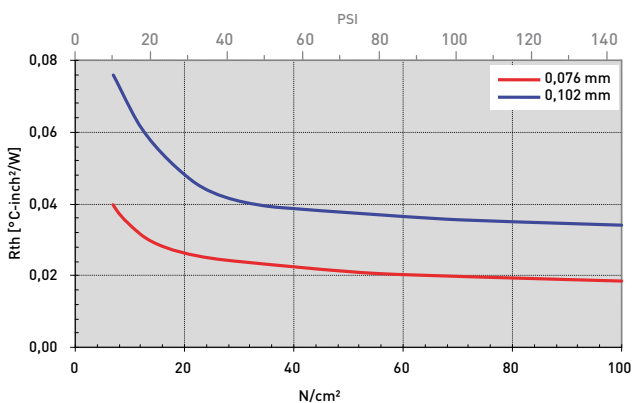
Technical Data Sheet

PROPERTY	UNIT	TPC-R076-AL	TPC-R102-AL
<b>MATERIAL</b>			
		Aluminum with phase change coating on both sides	Aluminum with phase change coating on both sides
Colour		White	White
Thickness Aluminum	µm	51 ±8	51 ±8
Thickness Phase Change (per side)	µm	13	25
Total Thickness	µm	76	102
RoHS Conformity	2015 / 863 / EU	Yes	Yes
<b>THERMAL</b>			
Resistance <sup>1</sup> @ 150 PSI	°C-inch <sup>2</sup> /W	0.019	0.034
Resistance <sup>1</sup> @ 30 PSI	°C-inch <sup>2</sup> /W	0.026	0.047
Resistance <sup>1</sup> @ 10 PSI	°C-inch <sup>2</sup> /W	0.040	0.076
Phase Change Temperature	°C	ca. 60	ca. 60

Measurement technique according to: <sup>1</sup> ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and information.

Thicknesses: 51 µm / 76 µm / 102 µm / 127 µm / 152 µm / 177 µm / 279 µm / 304 µm

Rth vs. N/cm<sup>2</sup> (PSI)



All technical data and information are without warranty and believed to be reliable and accurate corresponding to the latest state of the art. Since the products are not provided to conform with mutually agreed specifications and their use and processing are unknown we cannot guarantee results, freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes.