

THERMAL CONDUCTIVITY
(W/m²·K)

220

Electrically non insulating



The Heatmanagement
Company

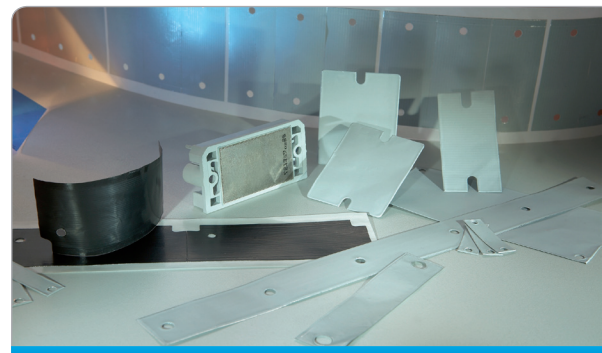
Aluminium foils with phase-change coating (CRAYOTHERM®) KU-ALC5 and KU-ALF5

HEATPAD® KU-ALC and KU-ALF are very thin aluminium foils, coated on both sides with silicone-free thermally conductive CRAYOTHERM® wax. The coating changes its aggregate state - i.e. turns soft - at ca. 60 °C (KU-ALC) or ca. 51°C (KU-ALF), respectively. Through CRAYOTHERM®'s volumetrical expansion above the phase-change temperature (by 15 to 20 per cent) and the active covering of the surfaces, thermal contact resistance is minimized.

Optimal thermal contact - and consequently, optimal total thermal transfer resistance - is achieved already after the phase-change temperature is first exceeded, and is then permanently sustained at all temperatures above and below phase-change temperature. In the case of KU-ALF, the CRAYOTHERM® thermally conductive wax is enriched by high-performance thermoconducting graphite as a filler, thereby reducing total thermal contact resistance to a minimum.

PROPERTIES

- Minimal total thermal contact resistance through volumetric expansion by ca. 15 to 20 per cent and active covering of contact surfaces
- Silicone-free
- Guaranteed constant layer thickness
- Low tightening torque required
- Quick and clean handling through lateral adhesive strips for ALC/S and ALF/S
- Replaceability of the material without surface treatment
- Cleaning with isopropyl alcohol
- Non-adhesive or with lateral adhesive strips S



Aluminium foil with phase-change coating KU-ALF5 / KU-ALC5

We disclaim all liability for accuracy of this information. Technical detail is subject to change.

Image may differ from the original product

*Filler: Ceramic
** Filler: Graphite

PART	KU-	ALC5	ALC5/H	ALF5	ALF5/H	ALF5/H2
GENERAL PROPERTIES						
Material	Body	CRAYOTHERM® – Aluminium – CRAYOTHERM®				
Phase-Change-Material		CRAYOTHERM®				
Colour		Bright grey*		Black**		
Material gauge without coating	µm	51				
Total gauge	µm	76	102	76	83	102
THERMAL PROPERTIES						
Thermal conductivity (aluminium substrate)	W/mK	220				
Thermal resistance (inch ²)	°C/W	0,021	0,036	0,009	0,01	0,012
Operating temperature	°C	-60 to +150				
Storage temperature	°C	max. 40				
Phase-change temperature	°C	60		51		

Stand: 08.01.2015

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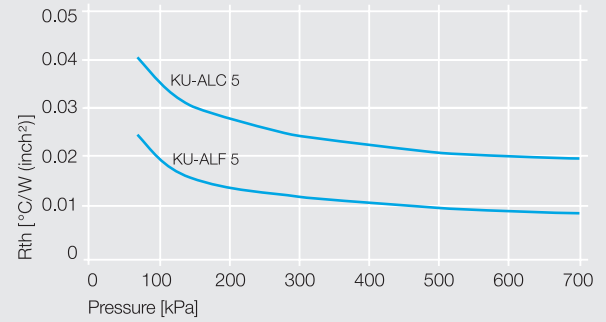
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PRESSURE DEPENDENCE

Thermal resistance vs.
mounting pressure



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