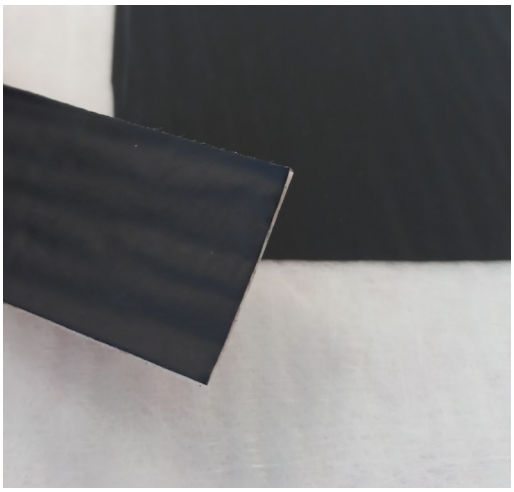
THAI TECHNOLOGIES

TiHs A1

Thermal Insulation Heat Spreader



The TiHs A1 is a high performance Thermal Insulation Material based on a layered compound of two functional materials.

The high insulation features are based in a combination of a heat spread technic and a aero based fiber layer. This layered compound material has superior heat-shield insulation performance, is hydrophobic but vapor permeable, compress resistant and has a inorganic and inflammable profile.

Due to the heat spreading and insulation technic this material is suitable for high end applications. It is utilized in applications with heat hotspots, heat-shield needs and narrow dimensions for appliance, e.g Industrial, Power Electronics, Battery packs and automotive

The layered compound is a stack of four materials with two major features. The Graphite based stack (on the hot side) provides a heat spreading function in both x and y axis. Hereby hotspots are transferred and eliminated with the benefit of the full dissipation surface. The next layer is the insulation layer (cold side) based on a aero-technic silica fiber material with high insulation specifications due to the very low thermal conductivity.

Properties	Unit	TiHs A1
Thermal Properties		
(cold side)		
Thermal conductivity	W/mK	0.023
(hot side)		
Heat Spread along material	W/mK	1200
Physical Properties		
Standard thickness	mm	1.25
Thickness tolerance	%	10

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Properties	Unit	TiHs A1
Thermal Properties		
(cold side)		
Thermal conductivity	W/mK	0.023
(hot side)		
Heat Spread along material	W/mK	200
Physical Properties		
Standard thickness	mm	1.25
Thickness tolerance	%	10
Total thickness tape	mm	0.2
Thickness carries tape	mm	0.012
Adhesive		Acrylic
Adhesive carrier		PET (Polyester)
Max. working temp adhesive	C^o	90

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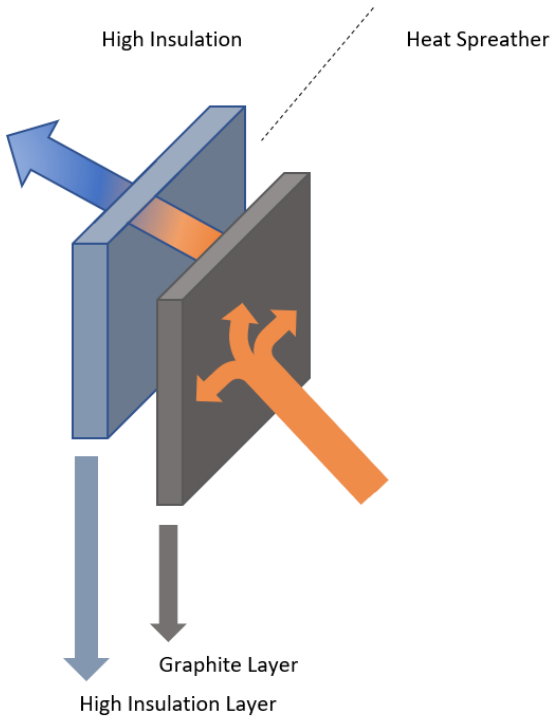

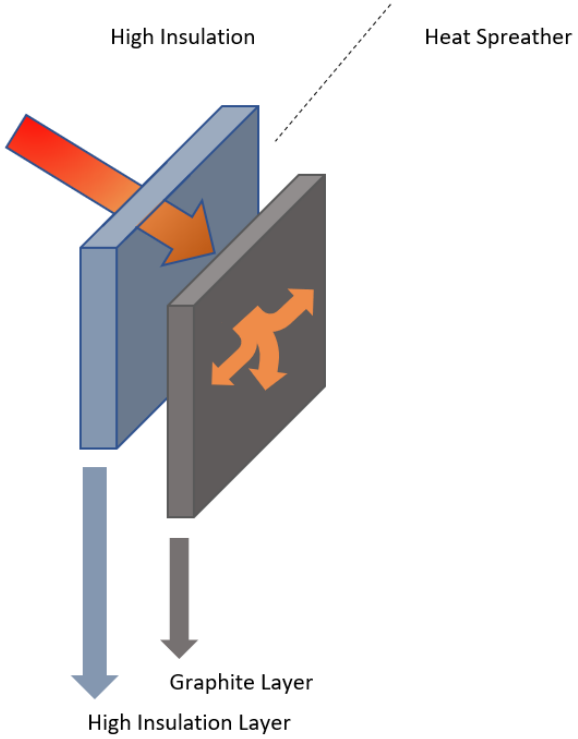

* application note: ‘Hotspot Spreader’ and ‘Advanced Insulation’

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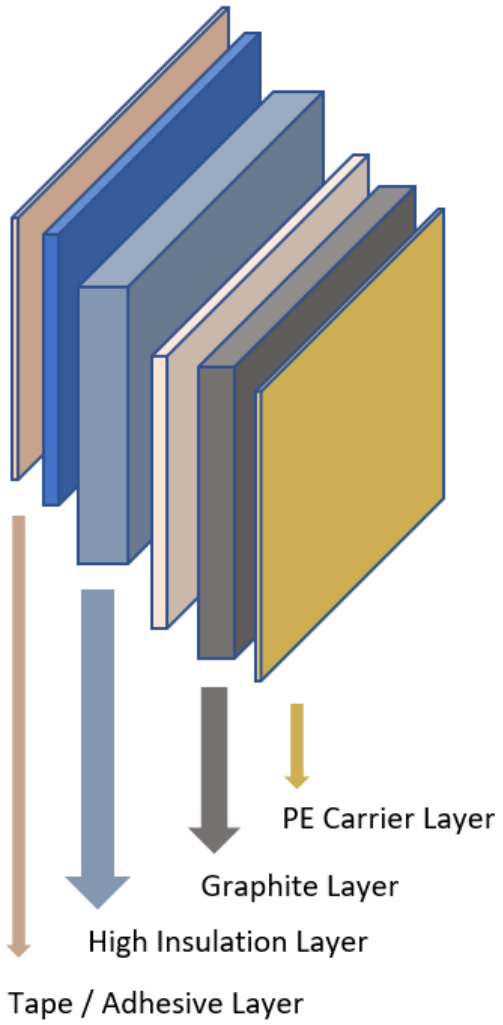

The data presented in this leaflet are in accordance with the present state of our knowledge. All stat ments, technical information and recommendations herein are based on tests we believe to be reliable. The customer is thereby not absolved from carefully checking all supplies immediately on receipt. The recommendations made in this catalogue should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies‘ raw materials are also being used. Before using, user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability whatsoever in connection there with. We reserve the right to alter product constants within the scope of technical process or new developments. The recommendations do not absolve the customer from the obligation of investigating the possibility of infringement of third parties right and, if necessary, clarifying the position. Sellers‘ and manufacturer‘ only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable either in tort or contract for any loss or damage, direct or incidental, or consequential, including loss of profi ts or revenue arising out of the use or the inability to use a product. No statement, purchase order or recommendations by seller or purchaser not contained herein shall have any force or effect unless in an agreement signed by the officers of the seller