



TECHNICAL DATASHEET

TRANSTHERM® THERMALLY CONDUCTIVE ADHESIVE TAPES

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Transtherm® Thermally Conductive Adhesive Tapes combine mechanical attachment with improved thermal conductivity between joined surfaces. Utilizing these tapes reduce the thermal resistance between surfaces with a thin bond line of thermally conductive acrylic adhesive. Transtherm® Adhesive Tapes are commonly used to adhere LED light bars or semiconductor packages to heat sink surfaces.

These tapes feature pressure sensitive adhesives (PSAs), meaning they only require pressure for application and do not need heat cycling for maximum bonding or material wet-out. Transtherm® Adhesive Tapes offer easy peel and stick application, enabling the user to replace mechanical attachment hardware, such as springs and screws and improve installation time.

Because Transtherm® Adhesive Tapes are composed of acrylic and are silicone free, they are ideal for sensitive applications. Transtherm® Tapes are available with a reinforcement material for high mechanical stability and typically feature double-sided adhesive, making them beneficial components in an integrated, multifunctional assembly.

Boyd's Transtherm® Thermally Conductive Adhesive Tapes conform with REACH and RoHS regulations.





ORDERING INFORMATION

Contact your Boyd representative for more information or contact us at www.boydcorp.com/boyd-contact

Part Number	Structure Type	Thermal Conductivity (W/mK)
T2022-100	А	0.8
TAP003	В	0.6
TAP005	С	0.6
TAP005 S	С	1.2
TAP010 S	С	1.2
SFG	D	1.1

Structures	Illustration	Description	
Α	<i>──</i>	Adhesive	
В		Polyimide	
		Adhesive	
С		Adhesive	
		Polyimide	
		Adhesive	
D		Adhesive	
		Polyester (PET)	
		Adhesive	



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MATERIAL PROPERTIES

Without Reinforcement: Structure A

Properties	T2022-100	Units	
Color	White	-	
Thickness	0.1 ± 0.01	mm	
Structure	Α	-	
Adhesive Strength	500	N/m	
Breakdown Voltage	2000	V(AC)	
Thermal Conductivity	0.8	W/mk	
Thermal Resistance - inch² (cm²)	0.6 (3.87)	°C/W	
Continuous Usage Temperature	-40 to +150	°C	
Flame Rating UL 94	V0	-	



With Reinforcement: Structures B, C, & D

Properties	TAP003	TAP005	TAP005 S	TAP010 S	SFG*	Units
Color	Yellow	Yellow	Yellow	Yellow	White	-
Reinforcement Thickness	0.025	0.025	0.025	0.025	0.012	mm
Adhesive Thickness (One Side)	0.050	0.050	0.050	0.1125	Approx. 0.09/0.12	mm
Total Thickness	0.075 ± 0.015	0.125 ± 0.025	0.125 ± 0.025	0.25 ± 0.03	0.2 ± 0.02 0.25 ± 0.025	mm
Structure	В	С	С	С	D	-
Adhesive Strength	620	700	580	780	610	N/m
Breakdown Voltage	6000	6000	6000	6000	8500	V(AC)
Thermal Conductivity	0.6	0.6	1.2	1.2	1.1	W/mk
Thermal Resistance - inch² (cm²)	0.3 (1.94)	0.4 (2.58)	0.26 (1.67)	0.33 (2.13)	0.2 mm: 0.37 (2.39) 0.25 mm: 0.46 (2.97)	°C/W
Continuous Usage Temperature	-40 to +150	-40 to +150	-40 to +150	-40 to +150	-40 to +120	°C
Flame Rating UL 94	N/A	V0	V0	V0	V0	-

^{*} Known as KU-SFG20/ KU-SFG25

Disclaimer: Boyd Corporation disclaims all liability for accuracy of this information. The data in this document are only for general information purposes. Please confirm compatibility with your applications prior to use. For advice, please contact a Boyd Representative. Technical details are subject to change without notice.

To maintain the material integrity, recommended storage temperature is between $+10^{\circ}$ C to $+35^{\circ}$ C with a humidity of 23% to 71%. Exposure to direct sunlight or direct pressure on packaging or parts is prohibited. Process material at $+20^{\circ}$ C and above.