Product Data Sheet

ARLON® ENGINEERED FOR YOU

ARLON® Secure® Adhesives

ARLON® Secure® adhesives are designed for long term reliability and performance for bonding in PCB, LED, power electronics and various thermal management applications. ARLON Secure adhesives form chemical bonds during cure to produce robust adhesion that is resistant to heat, humidity, and thermal shock. Adhesive bonding eliminates the need for mechanical fasteners thus reducing cost and freeing up space for value added components.

ARLON Secure adhesives are electrically insulating, UL listed with a UL94 V-0 flame rating and 150°C RTI, RoHS and REACH SVHC compliant, and free of halogen flame retardants:

- ARLON Secure 1500U: unreinforced silicone rubber adhesive that thermally crosslinks and bonds surfaces including aluminum, tin coated copper, copper, and epoxy
- ARLON Secure 1500FG: fiberglass reinforcement for improved handling and processing
- ARLON Secure 1500KT2: polyimide film reinforcement for enhanced dielectric strength and cut-through resistance

Adhesive applied to heat sink, transistors registered in place

Pressure applied to wet adhesive and drive air from interfaces

Assemblies are heated to thermally cure adhesive

PROPERTIES	SECURE 1500U	SECURE 1500FG	SECURE 1500KT2
Reinforcement	Not reinforced	Fiberglass 1080 style	Polyimide, 25 µ
Product Number	99A50R008	48A51R009	21A51R0075
Standard Thickness, mm (mils)	0.20 (8)	0.23 (9)	0.19 (7.5)
Thickness range, mm (mil)	0.18 - 0.46 (7 - 18)	0.23 - 0.46 (9 - 18)	0.19 (7.5)
Thermal Conductivity, W/mK , °C (°F)	1.5 @ 100°C (212°F)	1.5 @ 100°C (212°F)	1.5 @ 100°C (212°F)
Thermal Impedance @ 380 psi (in2*C/W)	0.28 @ 0.20 mm (8 mil)	0.4 @ 0.23 mm (9 mil)	0.29 @ 0.19 mm (7.5 mil)
Dielectric Strength (V/mil)	>800	>900	>1300
Lap Shear Strength (psi)	>500		
Torque Strength with TO-220 (kg.cm)	>18		
Operating Temperature, °C (°F)	-100 to 204 (212 - 399)		
UL Flammability Rating	UL94 V-0		
RTI Rating, °C (°F)	150 (302)		

*Technical data is for reference only (typical values). Refer to product data sheets for additional technical information.

ROGERS CORPORATION