

# Secure® 1500FG

## Thermally Conductive, Fiberglass Reinforced, Thermoset, Structural Adhesive

ARLON® UltraPad® press pads provide circuit manufacturers a low cost per cycle option for applying even pressure to all type of circuits in both traditional and fast press lamination processes.

Properties	Typical Value		Test Method
	Imperial	Metric	
Color	Mauve	Mauve	Visual
Thickness	7-20 mils	0.18-0.51 mm	ASTM D374
Construction	Supported	Supported	---
Supporting Material	Fiberglass	Fiberglass	---
<b>Mechanical</b>			
Hardness	77 Shore A	77 Shore A	ASTM D2240
Shear Strength	500 psi	3.4 MPa	ASTM D1002
Elastic Modulus (≤ 1% Strain)	3550 psi	24.5 MPa	TMS-008
Shear Modulus (≤ 25% Strain)	55 psi	0.4 MPa	ASTM D1002
<b>Thermal</b>			
Conductivity	0.87 Btu (hr*ft*F)	1.5 W/mK	ASTM D5470
Impedance @ 40 psi; 7 mil	0.30 in <sup>2</sup> *C/W	1.9e <sup>-4</sup> m <sup>2</sup> *K/W	ASTM D5470
Impedance @ 40 psi; 9 mil	0.34 in <sup>2</sup> *C/W	2.1e <sup>-4</sup> m <sup>2</sup> *K/W	ASTM D5470
Glass Transition Temp	-180°F	-118°C	ASTM D3418
Operating Range	-150 to 400°F	-100 to 204°C	---
<b>Electrical</b>			
Dielectric Strength, kVac	>500 V/mil	>19kV/mm	ASTM D149
<b>UL Certification (QMFZ2.E54153)</b>			
Flammability Rating	V-0	V-0	UL 94
RTI, Mechanical	300°F	150°C	UL 746
RTI, Electrical	300°F	150°C	UL 746
Hot Wire Ignition (HWI)	4 @ 0.17 mm 3 @ 0.51 mm	4 @ 0.17 mm 3 @ 0.51 mm	UL 746
High Current Arc Ignition (HAI)	3 @ 0.17 mm 2 @ 0.51 mm	3 @ 0.17 mm 2 @ 0.51 mm	UL 746

Secure® 1500FG is a structural adhesive film composed of uncured silicone rubber with functional additives formulated to deliver exceptional thermal, physical, and electrical properties.

Developed specifically for LED and Power applications where long-term reliability is a top concern, Secure adhesives form chemical bonds with the substrates they are in contact with during cure to produce robust adhesion that is resistant to heat, humidity, and shock. This eliminates the need for mechanical fasteners and alleviates concerns with screws coming loose, clips retaining clamping force, gap pads taking a compression set, or thermal greases pumping out. Secure adhesives are electrically insulating to isolate your LED PCB or power transistor from the heat sink. Secure® adhesives are UL listed with a UL94 V-0 flame rating and a 150°C relative thermal index (RTI) for both mechanical and electrical. Additionally, Secure adhesives are RoHS compliant and free of halogenated flame retardants.

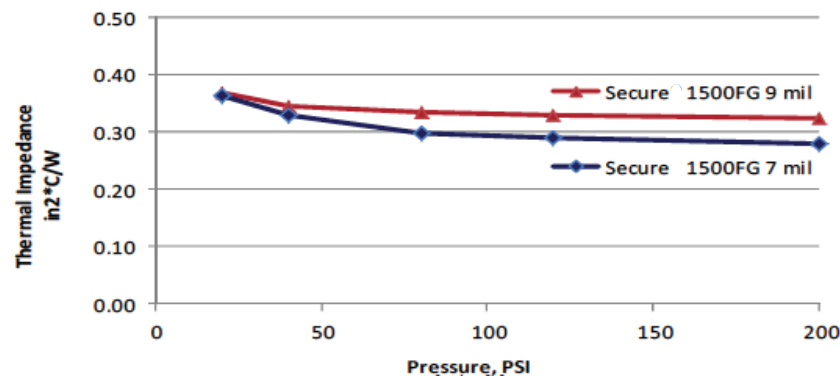
- Eliminates the need for mechanical fasteners
- Decouples stress induced by mismatched coefficients of thermal expansion
- Improves consistency of thermal path to heat sink
- Can be cured without pressure for small bonding areas < 5 cm<sup>2</sup>

### Applications

- Adhering power transistors to heat sinks
- Adhering LED light modules to heat sinks
- Adhering electronic assemblies to heat sinks

### Standard Sizes

- 16 in. x 125 LY rolls
- Slit widths, cut pads, and die cuts
- Other sizes on request



20130610 Thermally Conductive, Fiberglass Reinforced, Thermoset, Structural Adhesive Secure 1500FG adhesives are temperature sensitive. Rogers recommends 7 +/- 3°C storage. Shelf life is 6 months from DOM at recommended conditions.