

# Silductor 6310

## Electrically Conductive Silicone Adhesive

Typical Properties			
Property	Unit	Value	Test Method
Color / Component		Silver	Visual
Viscosity at 25°C	cP.s	41,000	ASTM D2196
Thixotropic Index		2.1	ASTM D2196
Density	Gram /cc	4.9	ASTM D792
Weight loss in cure	Weight %	< 0.3%	TGA
Property as Cured			
Color		Silver / Yellow	Visual
Hardness	Shore A	45	ASTM D2240
Tensile Strength	MPa	3.1	ASTM D638
Elongation	%	220	ASTM D638
Volume Resistivity	Ohm-cm	$< 5 \times 10^{-4}$	ASTM D257
Coefficient of Thermal Expansion	ppm/C	< 100	IPC-TM-650
Thermal Conductivity	W/m-K	> 4	ASTM D5470
Adhesion (Al/Al lap shear)	Psi	> 150	ASTM D1002
Tg	°C	-120	DMA
Temperature Usage	°C	- 50 to 230	TGA
Cure Profile			
Cure at 125 °C	Min	60	DSC
Cure at 150 °C	Min	30	DSC
Pot / Work Life at 25°C	Hr	> 72	Viscosity double
Shelf Life @ below -15°C	Month	> 6	ITM

These figures are only intended as a guide and should not be used in preparing specifications.

### Processing Instruction

**Important!** Silductor 6310 is platinum cure system. Please keep applied surface clean and avoid using this material on any surface that contains sulfur, amine, phosphorous, organo-metals, acid, etc., because these contaminants could inhibit the cure of the material.

Always store unused Silductor 6310 in freezer (< - 15 °C) to prevent any possible deteriorating of the material or settling of the filler.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives, Inc.

### Storage

Silductor 6310 has a shelf life of at least 6 months when stored below - 15 °C in the originally sealed container. The 'Best use before end' date of each batch appears on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

### Safety information

General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives, Inc.

### Characteristics

Silductor 6310 is a silicone-based electrically conductive adhesive designed for electronic applications. After cure at elevated temperature, it forms a flexible, rubbery conductive adhesive having superior electrical and thermal conductivity. It is used for low stress soldering / connecting / conducting applications such as in Sensors, Filters, Crystal Oscillators, MEMS, LCD Driver IC's, CCD chip attach, Wafer Lamination, etc. Silductor 6310 is dispensable.

### Special Features and Benefits

- High electrical conductivity
- Flexible for low stress bonding
- High thermal conductivity
- High temperature stability
- Reworkable
- Low bleeding, low volatile
- Low ionic content

### Typical Applications

- Aerospace and Automotive electronics
- Semiconductor and Telecommunications
- Conducting while dissipating heat
- Grounding of power devices
- EMI shielding and gasketing
- Thermally conductive vibration

Silductor 6310 has a shelf life of at least 6 months when stored below - 15 °C in the originally sealed container.