

# Silductor 6381

## Electrically Conductive Silicone Adhesive

Typical Properties			
Property	Unit	Value	Test Method
Color / Component		Silver-Copper	Visual
Viscosity at 25°C	cPa.s	85,000	ASTM D2196
Density	Gram /cc	4.6	ASTM D792
Weight loss in cure	Weight %	< 0.4%	TGA
Property as Cured			
Color		Silver / Yellow	Visual
Hardness	Shore A	80	ASTM D2240
Tensile Strength	MPa	3.5	ASTM D638
Elongation	%	76	ASTM D638
Volume Resistivity	Ohm-cm	< 0.002	ASTM D257
Coefficient of Thermal Expansion	ppm/C	< 95	IPC-TM-650
Thermal Conductivity	W/m-K	> 6.0	ASTM D5470
Adhesion (Al/Al lap shear)	Psi	> 230	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	Day	5	Viscosity double
Shelf Life @ -25°C	Month	6	ITM

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

### Processing Instruction

**Important!** Silductor 6381 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 6381 in freezer (< -15°C) to prevent any possible deteriorating of the material.

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 6381 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 6381 is a silicone electrically conductive adhesive with hybrid filler of silver and silver-coated copper. After cure at elevated temperature, it forms a flexible, rubbery conductive adhesive having electrical and thermal conductivity with strong bonding to various metals surfaces. It is used for low stress soldering, connecting, conducting, and grounding applications. Silductor 6381 is printable and dispensable.

### Special Features and Benefits

- Flexible for low stress bonding
- Good electrical conductivity
- High thermal conductivity
- High temperature stability
- Strong bonding to various surfaces
- Low bleeding, low volatile
- Low ionic content
- Reworkable

### Typical Applications

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

Silductor 6381 has a shelf life of at least 6 months when stored at < -15°C in the originally sealed container.