

Structalit®
Maximum Strength Multi-Purpose Adhesives

System Properties

- Single and two-component adhesives
- Maximum strength
- For various materials
- Wide range of applications

Advantages

- Easy
- Multi-purpose
- Fast
- Cost-effective

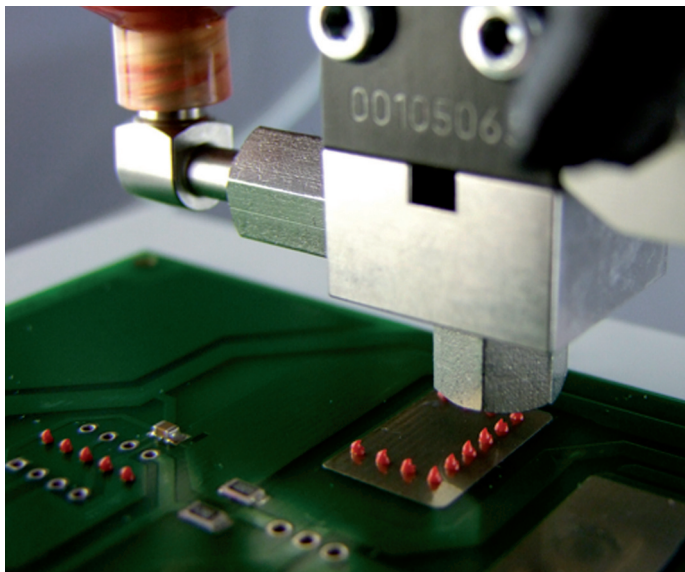
Structalit® Multi-Purpose Single and Two-Component Adhesives for Maximum Strength

The Structalit® products are one and two-component multi-purpose adhesives that provide maximum strength.

Structalit® can also be used in special and high-tech applications, for example in PCB production, where it is used as a black, thermally curing 1-part sealing compound. They are ideal for bonding a wide range of different materials.

Advantages

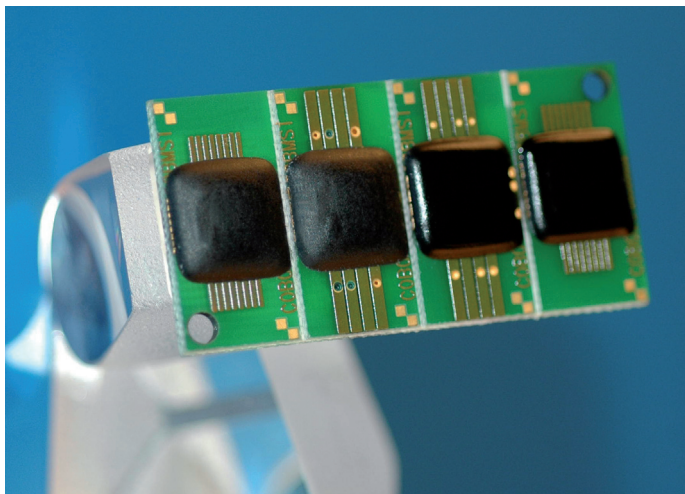
- Easy
- Multi-purpose
- Fast
- Cost-effective



SMD adhesive application by jetting with dispenser from Liquidyn

Structalit® Bonds many Materials

- | | |
|-------------|---------------------------|
| • Metals | • Thermosetting plastics |
| • Glass | • Glass fibre plastics |
| • Porcelain | • Hard PVC |
| • Ceramics | • Rigid foam |
| • Stone | (for example polystyrene) |
| • Concrete | • Wood |



Typical Applications

Single-Component: Bonding Metal Constructions:

- For sheet metalwork, electronic or high-tech applications

Two-Component: For Large bonded Parts that have to cure at Room Temperature:

- Sealant
- Heat-resistant plastic bonds

Properties of the Adhesives

- Single-component adhesives, thermally curing, with superior strength on many materials
- Single-component glob-top sealants, black, fast curing
- Two-component adhesives or sealant with various pot lives, also cure at room temperature
- With excellent strength and stability
- High thermal stability and chemical resistance

Processing Notes

Structalit® single-component epoxy resins are hot-curing adhesives with varying properties. Before use, note the instructions on our specifications and safety data sheet.

Preparation

Store Structalit® in a refrigerator at 5 °C. Before use, warm it to room temperature but no more than 40 °C. This reduces the product's viscosity, improving its flowability and dispensing properties.

Application

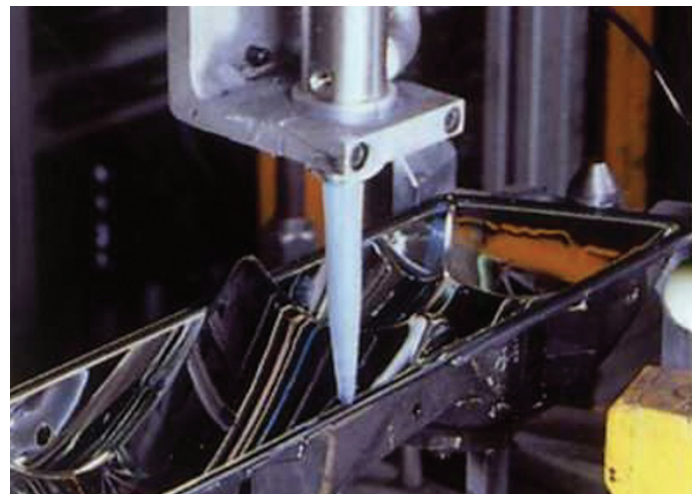
- with putty knife
- through screen printing
- with dispenser

Curing

Curing takes place at temperatures above 100 °C.

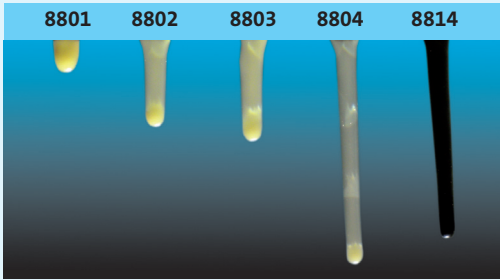
This value relates to the workpiece temperature, i.e. the given cure time begins only when the workpiece has reached the ambient temperature. For workpieces with poor thermal conductivity, the cure time increases accordingly.

A longer cure time does not have any negative effects.



Structalite®							
Structalite®	5800	5810	5820	5830	5845		701
Typical Applications	Glass, Plastics, Metal, Multipurpose Sealant for Electronics	Glass, Plastics, Metal, Flexible Adhesive and Sealant	Metal Adhesive, Bonding Components to Enclosures	Ferrite Bonding	Flexible Sealant for Large Components		Fibre-Optics, Endoscopes
Base	2-part Epoxy with Short Pot Life	2-part Epoxy with Long Pot Life	1-part Epoxy, Hot-Curing	1-part Epoxy, Hot-Curing	2-part Epoxy, Hot- and Cold-Curing		2-part Epoxy, Hot-Curing
Color	Transparent Slight Yellow Tint	Transparent Slight Yellow Tint	Transparent	Amber	Grey		Amber
Viscosity (mPas)	7,000 – 15,000	2,000 – 3,000	20,000 – 25,000	28,000 – 38,000	22,000		4,500
Temp. Resistance (°C)	-40 to +200	-40 to +100 bond -40 to +180 seal	-40 to +200	-40 to +200	-40 to +180		-40 to +200
Curing	5 min at 150 °C 24 h at RT	5 min at 150 °C 48 h at RT	5 min at 150 °C	5 min at 150 °C	5 min at 150 °C 60 min at 100 °C		2 min at 150 °C 24 h at RT
Pot Life	30 min	7 h	-	-	6 h		6 h
Characteristics	Low Shrinkage, High Temperature, Chemical and Moisture Resistance	Good Adhesion to Plastics, Impact Resistant	Hard High Strength Adhesive	Elastic, High Strength, Impact Resistant	Flexible Sealant, Filled, Good Flexibility		Good Ingress in Fibre Bundles, Autoclavable

Structalite®							
Structalite®	5890	5891	5892	5893	5894	5604	5605
Typical Applications	Glob-Top, Sealant	Glob-Top, Dam Material	Glob-Top, Chip Adhesive	Glob-Top, Filler	Glob-Top, Chip Adhesive	SMD Adhesive, Components Mounting	SMD Adhesive, Components Mounting
Base	1-part Epoxy	1-part Epoxy	1-part Epoxy	1-part Epoxy	1-part Epoxy	1-part Epoxy	1-part Epoxy
Color	Black	Black	Black	Black	Black	Pink	Red
Viscosity (mPas)	300,000 – 400,000	300,000 – 400,000	200,000 – 300,000	6,000 – 10,000	45,000 – 55,000	25,000 – 40,000	14,500 – 15,000
Temp. Resistance (°C)	-40 to +180	-40 to +180	-40 to +180	-40 to +180	-40 to +180	-40 to +180	-40 to +180
Curing	3 min at 150 °C 10 min at 120 °C	3 min at 150 °C 45 min at 100 °C	3 min at 150 °C 10 min at 120 °C	3 min at 150 °C 10 min at 120 °C	3 min at 150 °C 45 min at 100 °C	2 min at 150 °C 5 min at 120 °C	1 min at 150 °C 3 min at 120 °C
Characteristics	Excellent Thermal Conductivity, Fast Curing	Curable Wet-in-Wet with Filler (St. 5893), Good Edge Stability and Impact Resistance	Short Curing Times, Good Impact Resistance, Dimensionally Stable at High Curing Temperature	Good Flow Characteristic, Can be used Wet-in-Wet with Dam Material (St. 5891), Good Impact Resistance	Good Impact Resistance	Thermal Curing Epoxy, Suitable for Reflow Process, Low Outgassing	Fast Curing at Low Temperature, Screen Printable, Suitable for Reflow

Structalite®					<p>The Structalite 880X is a versatile adhesive line allowing to adjust the flow properties to the individual application.</p> <p>Featuring the same product performance, these products differ by length of material flow before starting to polymerize.</p>
Structalite®	8801	8804	8805		
Typical Applications	Casting Compound, Potting, Structural Application	Casting Compound, Potting, Structural Application	Casting Compound, Potting, Structural Application		
Base	1-part Epoxy	1-part Epoxy	1-part Epoxy		
Color	Grey	Grey	Grey		
Viscosity (mPas)	30,000 – 45,000	30,000 – 45,000	30,000 – 45,000		
Temp. Resistance (°C)	-40 to +200	-40 to +200	-40 to +200		
Curing	3 h at 80 °C 5 min at 130 °C	3 h at 80 °C 5 min at 130 °C	3 h at 80 °C 5 min at 130 °C		
Characteristics	Good Chemical Resistance, High Tensile Strength, Well Suited for Parts with Similar CTE, Limited Material Flow before Hardening	Good Chemical Resistance, High Tensile Strength, Well Suited for Parts with Similar CTE, Limited Material Flow before Hardening	Good Chemical Resistance, High Tensile Strength, Well Suited for Parts with Similar CTE, Limited Material Flow before Hardening		

Adhesion

Epoxy resins have good adhesion to metals, glass and many plastics. For optimal long-term reliability, materials with similar thermal expansion coefficients should be used for large surface area bonds.

When curing, epoxies generate heat. In small volumes, the heat may not be significant. However, when used in large potting applications, the epoxies will produce significant amounts of heat. The larger the mass, the higher the temperature. Substrates must be evaluated for heat sensitivity before using epoxies for large volume potting or encapsulating.

Storage

Packaged epoxies require refrigerated storage (+5 °C). Structalit® epoxies have a shelf life of at least six months when properly stored.

You can find further information about our product groups in our special product data sheets.

For our comprehensive range of accessories for our products, please ask for our detailed information sheets.



hönle group		Engineered Adhesives	UV-adhesives	Conductive adhesives	Potting	Curing		
aladin	eleco-efd	eltosch grafix	hönle	mitronic	panacol	printconcept	raesch	uv-technik speziallampen

Panacol-Elisol GmbH, Daimlerstr. 8, 61449 Steinbach/Taunus, Germany
Phone: +49 6171 6202-0, Fax: +49 6171 6202-590, email: info@panacol.de, www.panacol.com
Operating parameters depend on production characteristics and may differ from the foregoing information. We reserve the right to modify technical data. © Copyright Panacol-Elisol GmbH. Updated 09/2015.