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

Structalit® Bonds many Materials
- Metals
- Glass
- Porcelain
- Ceramics
- Stone
- Concrete
- Thermosetting plastics
- Glass fibre plastics
- Hard PVC
- Rigid foam (for example polystyrene)
- 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.
### Structalit®

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

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

### Structalit®

<table>
<thead>
<tr>
<th>Structalit®</th>
<th>8801</th>
<th>8804</th>
<th>8805</th>
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</thead>
<tbody>
<tr>
<td><strong>Typical Applications</strong></td>
<td>Casting Compound, Potting, Structural Application</td>
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<td>Casting Compound, Potting, Structural Application</td>
</tr>
<tr>
<td>Base</td>
<td>1-part Epoxy</td>
<td>1-part Epoxy</td>
<td>1-part Epoxy</td>
</tr>
<tr>
<td>Color</td>
<td>Grey</td>
<td>Grey</td>
<td>Grey</td>
</tr>
<tr>
<td>Viscosity (mPas)</td>
<td>30,000 – 45,000</td>
<td>30,000 – 45,000</td>
<td>30,000 – 45,000</td>
</tr>
<tr>
<td>Temp. Resistance (°C)</td>
<td>–40 to +200</td>
<td>–40 to +200</td>
<td>–40 to +200</td>
</tr>
<tr>
<td>Curing</td>
<td>3 h at 80 °C 5 min at 130 °C</td>
<td>3 h at 80 °C 5 min at 130 °C</td>
<td>3 h at 80 °C 5 min at 130 °C</td>
</tr>
</tbody>
</table>

The Structalit 880X is a versatile adhesive line allowing to adjust the flow properties to the individual application.

Featuring the same product performance, these products differ by length of material flow before starting to polymerize.
Adhesion

Epoxy resins have good adhesion on metals, glass and many plastics. Large-area bonds should be made only between materials with similar thermal expansion coefficients.

In applications with large volumes they are not suitable as sealants, since curing of larger quantities causes exothermic reactions, which presents a risk of fire.

Storage

The packing drums must be stored refrigerated at +5 °C. Correctly stored, Structalit® has a shelf life of at least six months.

Dispensing Devices

We have the perfect dispensing devices for all your needs – from standard machines to highly specialised equipment. Ideal for precise dispensing application of various low- and high-viscosity materials. And we also have the suitable accessories.

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.