Araldite® adhesives are high-strength materials formulated for use in a broad range of applications. Many of the adhesives are UL-recognized for high-temperature use and exhibit good dielectric characteristics as well as excellent chemical and moisture resistance. In addition, the products are easy to handle with a range of work lives and the ability to cure at room and elevated temperatures. The durable adhesives are sag resistant, resist shrinkage and are easy to apply from dual-barrel cartridges or via automated mixing/dispensing equipment.

Performance and properties

<table>
<thead>
<tr>
<th>Substrates Bonded</th>
<th>Resistance Properties</th>
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<tbody>
<tr>
<td>Ferrous Metals and Aluminum</td>
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<td>ABS/PVC</td>
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<tr>
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<td>Chemical</td>
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<tr>
<td>Water / Steam</td>
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- Excellent mechanical, environmental and dielectric properties
- UL-recognized for high-temperature applications
- Broad range of work lives and cure schedules
- Good mechanical, environmental and dielectric properties
- High-strength and long-term reliability
- Excellent resistance to chemicals and moisture
- Epoxy-based adhesives
- High adhesion to a wide variety of substrates
- Easy to use and handle
- Suitable for bonding electronic components
- Ideal for applications requiring high-temperature resistance

**Performance and properties**

<table>
<thead>
<tr>
<th>Substrate Bonded</th>
<th>Resistance Properties</th>
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**References**

- Huntsman Advanced Materials Americas Inc.
  - Hercules Building, Suite 405
  - New York City, NY 10110, USA
  - Tel: +1 866 999 9999
  - Fax: +1 201 797 0100

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  - Fax: +86 20 848 65122

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  - Tokyo Branch
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  - Tel: +81 3 5403 8188
  - Fax: +81 3 5403 8186

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### Power industry

**Magnetic core lamination bonding**

Araldite® 5864 epoxy adhesive
- **Vibration resistant**
- **Excellent bond strength**
- **High temperature performance**
- **Good chemical resistance**
- **Resistant to cracking and moisture absorption**

**Porcelain to flange bonding**

Araldite® 5752 A/B epoxy adhesive
- **Fast curing**
- **High shear and peel strengths**
- **Tough and resilient**
- **Bond well to a wide range of substrates**

**Dielectric barriers in switchgears**

Araldite® 5863 epoxy adhesive
- **Non-flow**
- **No run-off**
- **UL-recognized insulation material**
- **Suitable for use at 180°C (356°F)**
- **Chemical resistant**

**Large transformer core stack bonding**

Araldite® 5865 A/B epoxy adhesive
- **Thermoset and gap-filling paste**
- **Tough, high-strength bonds**
- **Good chemical resistance**
- **For use at temperatures up to 180°C (356°F), in accordance with UL 1446**

**Porcelain to porcelain bonding**

Araldite® 5754 A/B epoxy adhesive
- **Low viscosity**
- **Good electrical properties**
- **Fast curing**
- **Resistant to cracking and moisture absorption**

**Bonding high-volume components**

Araldite® 5767 epoxy adhesive
- **Tough for long-term durability**
- **High load resistance**
- **Good dielectric properties with high peel strength**
- **Resists bonding on full range of substrates**

---

### Electronics industry

**Printed circuit board assembly**

Araldite® 5864 A/B epoxy adhesives
- **Sag resistant**
- **Good high-temperature performance**
- **Chemical resistant**
- **Resistant to cracking and moisture absorption**

**Bonding and staking coils**

Araldite® 5785 A/B polyurethane adhesives
- **Flexible adhesives**
- **Suitable for use**
- **Good high-temperature performance**
- **Good chemical resistance**
- **Low CTE to resist stress cracking**

**Bonding and insulating for electromagnetic applications**

Araldite® 5864 A/B epoxy adhesive
- **Rapid setting and curing**
- **Good thermal stability**
- **Good high-temperature capability**
- **Low shrinkage**

**Bonding low-voltage assemblies**

Araldite® 5870 A/B polyurethane adhesives
- **Durable joints on metal and thermoplastics**
- **Good electrical properties**
- **Good high-temperature resistance**
- **High reliability**

---

### Processing and performance data

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<th>Test Standard</th>
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<th>UL 1289</th>
<th>UL 1599</th>
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</tbody>
</table>

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**Description**

- **Volume Resistivity**
- **Surface Resistivity**
- **Adhesive volume resistivity**
- **Surface resistivity**
- **Dielectric constant**
- **Dielectric strength**
- **Volume resistivity**
- **Dielectric loss factor**
- **Loss tangent**
- **UL-Recognized System Compliance**
- **Test Standard**

**Values**

- **Ohm-cm**
- **kV/mm**
- **W/mK**
- **PPM/°F**
- **°F**
- **°C**
- **Shore D**
- **min.**

---

**Processing**

- **Flowable viscosities to effectively insulate areas**
- **Araldite®... bonding**
- **Large transformer core stack bonding**
- **Bonding and insulating for electromagnetic applications**
- **Bonding and staking coils**
- **Printed circuit board assembly**
- **Power industry**

---

**Araldite® Adhesives**

- **• Good dielectric strength**
- **• Durable joints on metals and thermoplastics**
- **• Low shrinkage**
- **• Rapid setting and curing**

---

**Huntsman**

- **Enriching lives through innovation**
### Adhesives dedicated to

#### Power industry
- **Magnetic core lionmation bonding**
  - **Araldite® 5864 A/B epoxy adhesive**
    - **Vibration resistant**
    - **Excellent bond strength**
    - **High temperature performance**
    - **Good chemical resistance**
    - **Easy to bond to a wide range of substrates**

#### Porcelain to flange bonding
- **Araldite® 5772 A/B epoxy adhesive**
  - **Pack curing**
  - **High shear and peel strengths**
  - **Rapid and self-setting**
  - **Bonds well to a wide range of substrates**

#### Dielectric barriers in switchgears
- **Araldite® 5869 A/B epoxy adhesive**
  - **Non-flow or flowable**
  - **UL-recognized insulation material**
  - **Suitable for use at 180°C (356°F)**
  - **Chemical resistant**

#### Large transformer core stack bonding
- **Araldite® 5859 A/B epoxy adhesive**
  - **Thermoplastic and gap-filling paste**
  - **Tough, high-strength bonds**
  - **Good chemical resistance**
  - **For use at temperatures up to 180°C (356°F)**
  - **In accordance with UL 1446**

#### Porcelain to porcelain bonding
- **Araldite® 5774 A/B epoxy adhesive**
  - **Laminating and bonding**
  - **Room temperature cure that can be accelerated with heat**
  - **For use at temperatures up to 180°C (356°F)**
  - **In accordance with UL 1446**

#### Bonding high-volume components
- **Araldite® 5878 epoxy adhesive**
  - **Tough for long-lasting durability**
  - **High peel resistance**
  - **Good dielectric properties with high peel strength**
  - **Relatively strong on full range of substrates**

### Electronics industry
- **Printed circuit board assembly**
  - **Araldite® 5864 A/B epoxy adhesives**
    - **Summation to effectively resist harsh environments**
    - **Good high-temperature performance**
    - **Good bond performance at solder temp.**
    - **Low CTE to resist stress cracking**

#### Bonding and insulating for electromagnetic applications
- **Araldite® 5861 A/B epoxy adhesive**
  - **Rapid setting and curing**
  - **Cold cap high-temperature capability**
  - **Low shrinkage**

#### Bonding low-voltage assemblies
- **Araldite® 5869 A/B polyurethane adhesives**
  - **Durable joints on metals and thermoplastics**
  - **Good high-temperature performance**
  - **High shear and peel strengths**

### Processing and performance data

<table>
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<tr>
<th>System Component</th>
<th>UL-Recognized (yes/no)</th>
<th>Loss Tangent (tanδ) at 1 KHz</th>
<th>Loss Tangent (tanδ) at 10 KHz</th>
<th>Conductivity at 50 Hz</th>
<th>Thermal Conductivity (W/mK)</th>
<th>Dielectric Strength (kV/mm)</th>
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**Note:** All values are given at 25°C (77°F) unless otherwise specified.
### Power industry

**Magnetic core lamination bonding**

**Araldite® 5865 A/B epoxy adhesive**

- **Vibration resistant**
- **Excellent bond strength**
- **High temperature performance**
- **Good chemical resistance**

**Araldite® 5870 A/B epoxy adhesive**

- **Non-flow, no run property**
- **UL-recognized insulating material**
- **Suitable for operation at 180°C (356°F)**
- **Chemical resistant**

**Araldite® 5877 A/B epoxy adhesive**

- **Chemical resistant**
- **Good high-temperature performance**
- **Good dielectric characteristics**
- **Flowable viscosities to effectively insulate areas**

**Porcelain to flange bonding**

**Araldite® 5772 A/B epoxy adhesive**

- **Early curing**
- **High shear and peel strengths**
- **Tough and resilient**
- **Bonds well to a wide range of substrates**

### Electronics industry

**Printed circuit board assembly**

**Araldite® 544 A/B epoxy adhesives**

- **Gap resistant**
- **Good high-temperature performance**
- **Chemical resistant**
- **Resists cracking and moisture absorption**

**Bonding and staking coils**

**Araldite® 5776 A/B polyurethane adhesives**

- **Flexible adhesives to effectively isolate areas**
- **Good high-temperature performance**
- **Good chemical resistance**
- **Low CTE to resist stress cracking**

**Bonding and insulating for electromagnetic applications**

**Araldite® 5861 A/B epoxy adhesive**

- **Rapid setting and curing**
- **Good thermal stability**
- **Good high-temperature capability**
- **Low shrinkage**

**Bonding low-voltage assemblies**

**Araldite® 5867 A/B polyurethane adhesives**

- **Durable joints on metals and thermoplastics**
- **Good dielectric strength**
- **Good high-temperature resistance**
- **High reliability**

### Adhesives dedicated to

**Processing and performance data**

<table>
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<tr>
<th>System</th>
<th>Component A</th>
<th>Component B</th>
<th>Chemistry</th>
<th>Description</th>
<th>Conductivity</th>
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Araldite® adhesives are high-strength materials formulated for use in a broad range of applications. Many of the adhesives are UL-recognized for high-temperature use and exhibit good dielectric characteristics as well as excellent chemical and moisture resistance. In addition, the products are easy to handle with a range of work lives and the ability to cure at room and elevated temperatures. The durable adhesives are sag resistant, resist shrinkage and are easy to apply from dual-barrel cartridges or via automated mixing/dispensing equipment.

Bonding electrical and electronic components

**Araldite® adhesives**

- **Excellent**
- **Good**
- **Moderate**

**Performance and properties**

**Electrical Bonding**

- UL-recognized for high-temperature applications
- Broad range of work lives and cure schedules
- UL-recognized for high-temperature applications
- Good mechanical, environmental and dielectric properties

**Resistance Properties**

- Resistance to Chemicals
- Resistance to Moisture
- Resistance to Temperature

**Performance and properties**

- **Electronics Bonding**
- **Araldite® adhesives**
- **Electrical and electronic components**

**Functional benefits:**
- High-strength bonding
- Excellent electrical characteristics
- Good resistance to chemicals and moisture
- Easy to handle and apply

**Applications:**
- Bonding electrical and electronic components
- Encapsulate, insulate and bond electrical/electronic components

**Additional information:**
- UL-recognized for high-temperature applications
- Wide range of work lives and cure schedules
- Durability and chemical resistance

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