SolEpoxy is your partner in problem solving

SolEpoxy SERVES THE WORLD

Corporate
Olean, NY, USA
Research & Development
Manufacturing
Customer Service

Amsterdam, NL
Marketing
Planning
Technical Sales

Warehouses
Olean, NY, USA
Rotterdam, NL
Calexico, CA, USA
Chennai, India
Manila, Philippines

Safety stock in cold-storage warehouses around the globe minimize shipping costs and delivery time.

Market Partners
Indian subcontinent
Greater China
Korea
Southeast Asia

Representatives fluent in local languages provide product information & technical support
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<td>For high yield powder metal</td>
<td></td>
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<td>processing</td>
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<tr>
<td>DK14-2100 Brown</td>
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Motor Iron Slot Insulation

The new standard for performance & productivity

**BEST PERFORMANCE, PRICE & PRODUCTIVITY**

- The fastest Class H product in the market today
- Class H at the Class F price

**CLASS H**

SolEpoxy DK7-20H

With a Thermal index of 186°C, DK7-20H is a strong Class H powder.

**Color matched and specially formulated to run in the same production lines with our most economical automotive fluid-resistant Class F epoxy coating powder.**

<table>
<thead>
<tr>
<th></th>
<th>DK7-20H</th>
<th>DK7-0953M</th>
<th>DK15EG-05</th>
<th>DK15-02</th>
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<tbody>
<tr>
<td>UL 1446 system Class rating</td>
<td>H</td>
<td>F</td>
<td>F</td>
<td>B</td>
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<tr>
<td>Cut through resistance (°C)</td>
<td>396</td>
<td>360</td>
<td>380</td>
<td>300</td>
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<tr>
<td>Edge coverage, %</td>
<td>41</td>
<td>45.8</td>
<td>34.2</td>
<td>45</td>
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<tr>
<td>Hot plate gel time</td>
<td></td>
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<tr>
<td>@ 160 °C</td>
<td>26</td>
<td>57</td>
<td>18</td>
<td>29</td>
</tr>
<tr>
<td>@ 210 °C</td>
<td>10</td>
<td>27</td>
<td>5</td>
<td>14</td>
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<tr>
<td>Colors</td>
<td></td>
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</tr>
<tr>
<td>Application Method</td>
<td>Fluidized Bed</td>
<td>Fluidized Bed</td>
<td>Fluidized Bed</td>
<td>Fluidized Bed Electrostatic Spray</td>
</tr>
<tr>
<td>Storage life @ 10 °C , months</td>
<td>18</td>
<td>18</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Floor life @ 23°C, months</td>
<td>9</td>
<td>12</td>
<td>6</td>
<td>3</td>
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</table>
**Units per hour**

DK7-20H runs up to 12% faster on a Braun electrostatic fluidized bed

900 units per hour coated with DK7-20H in one hour, as compared to only 800 units with a competitive material!

**Excellent Stability**

- A longer floor life at higher temperatures saves storage & transport costs
- DK7-0953M has been successfully used in hot & humid environments for years
- Now DK7-20H features the best floor life among any class H capable product
Insulation up to 50 kV

Fusion bonded epoxy is the preferred insulation for busbars because it yields no air gap and no seems.

- Moisture protection
- Thermal conductivity
- Impact and scratch resistant
- Able to insulate bends and shapes
- High productivity and quality

SolEpoxy provides the only coating powders that build up to 5 mm thick

Achievable Coating Thickness

- **DK19**
  - Maximum Voltage: 50,000V @ 5mm
  - Minimum Thickness: 0.5mm
- **DK15-0907**
  - Maximum Voltage: 40,000V @ 4mm
  - Minimum Thickness: 1mm
- **DK15-0606**
  - Maximum Voltage: 40,000V @ 4mm
  - Minimum Thickness: 1mm
- **DK15-0463**
  - Maximum Voltage: 600V @ 1mm
  - Minimum Thickness: 0.5mm

SolEpoxy is your partner in problem solving
Switchgear, Network Connectors and Busbars

<table>
<thead>
<tr>
<th></th>
<th>DK15-0463</th>
<th>DK15-0606</th>
<th>DK15-0907</th>
<th>DK19 Red</th>
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</thead>
<tbody>
<tr>
<td>Glass Plate Flow (mm)</td>
<td>27</td>
<td>20</td>
<td>19</td>
<td>21</td>
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<tr>
<td>Dielectric Strength (kV/mm)</td>
<td>44</td>
<td>46</td>
<td>46</td>
<td>41</td>
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<tr>
<td>Hot Plate Gel Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>@ 160 °C</td>
<td>N/A</td>
<td>24</td>
<td>44</td>
<td>55</td>
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<tr>
<td>@ 210 °C</td>
<td>55</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Preheat Temperature, °C</td>
<td>170-220 °C</td>
<td>170-220 °C</td>
<td>170-220 °C</td>
<td>170-220 °C</td>
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<tr>
<td>Arc Resistance, seconds</td>
<td>130</td>
<td>135</td>
<td>135</td>
<td>168</td>
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<tr>
<td>Colors</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Application Method</td>
<td>Fluidized Bed</td>
<td>Fluidized Bed</td>
<td>Fluidized Bed</td>
<td>Fluidized Bed</td>
</tr>
<tr>
<td>Storage Life @ 10 °C, months</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
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Extreme Temperature Durability

SolEpoxy Highly Filled Composite Powders Conquer the Heat

Both Powders Achieve the Same UL RTI = 130°C Rating, but only SolEpoxy Bus Bar Insulation Survives over 500 hours at 200°C ... and Above!

![Graph showing temperature and life hours]
Functional coating at micron thickness

DK52 is tough & flexible:
- Does not crack when flexed and bent
- Suitable for very thin conductors
- Even thin coatings have exceptional moisture resistance & dielectric strength

Achievable Coating Thickness

SolEpoxy products provide fusion-bonded insulation

- Seamless & impermeable
- Thin & smooth

Power Applications

Functional epoxy insulation for applications below 60V

Electric cars

Data centers

Achievable Coating Thickness
DK53 for thin & uniform functional coatings on cold substrate:
- Apply via electrostatic spray on hot or cold parts
- For design miniaturization with epoxy protection

<table>
<thead>
<tr>
<th></th>
<th>DK50</th>
<th>DK52</th>
<th>DK53</th>
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<tr>
<td>Application Method</td>
<td>Spray</td>
<td>Fluidized Bed Spray</td>
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<tr>
<td>Recommended Preheat Temperature, °C</td>
<td>210</td>
<td>170</td>
<td>25</td>
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<tr>
<td>Recommended Post Cure Temperature, °C</td>
<td>200</td>
<td>200</td>
<td>180</td>
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<tr>
<td>Time, minutes</td>
<td>2</td>
<td>10</td>
<td>15</td>
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<tr>
<td>UL 94 V-0</td>
<td>Yes</td>
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</table>
Passive Electronics

The inventor of epoxy coating for passive devices

Capacitors

Products for ceramic, film wrap, and tantalum capacitors with the best thermal cycle performance.

Resistors

The Hysol legacy is rooted in products for resistors, including resistor networks, thermistors, and varistors.

Inductors

SolEpoxy DK18-05 is still the industry standard for toroids. Products are also available for binding ferrite potcores.
Innovating capacitor coating powder for 65 years

Film-wrap
Laser-markable epoxy, fusion-bonded to delicate plastic film

Tantalum
Unique self-healing materials that solve the pinhole problem

Class 1 Ceramics
Over a thousand thermal cycle achievable of large class 1 ceramic capacitors

On the shoulders of giants: SolEpoxy upholds the Hysol tradition of excellent materials for passive electronics

- 1950: Ceramic capacitors (DK1805 BLUE)
- 1960: Film wrap capacitors
- 1970: Tantalum capacitors
- 1980: Halogen-free passive coatings
- 1990: Most flexible coating for large Class 1 ceramic capacitors
- 2000: 
- 2012: 

June / 2018
Enterprise Epoxy is your partner in problem solving

Used in powdered metal components, DK14-2100 was developed as a binding resin to increase green strength.

**DK14-2100 Brown**

- **Excellent Green Strength**
  Epoxy powder holds the powdered metal together after pressing, before curing.

- **Class F Heat Stability**
  No degradation in color or physical properties at elevated temperatures approaching 150°C

- **Low Moisture Absorption**
  Maintains superior physical & magnetic properties when exposed to humidity

These shapes are compacted and baked powdered metal cores.

Optimal particle size improves green strength after cold pressing

Short curing times for maximum productivity

Low shrinkage binding resin reduces core stress to minimize effect on magnetic and inductance properties.

SolEpoxy is your partner in problem solving
SoEpoxy’s R&D group builds on a rich history of brilliant chemists, scientists, and engineers that dates back to Russ Houghton – the innovative founder of Hysol in Olean, New York, in 1948.

And now, the same Olean facility attracts talent to invent composite materials that uphold the tradition of research excellence.

SoEpoxy devotes about 10% of revenue to the company’s permanent commitment to R&D excellence. This exceeds the industry norm.

These investments are working. Since its founding, SoEpoxy has developed breakthrough products in every segment that we address.

Today, our customers are the beneficiaries. Working hand-in-hand with customer design teams, SoEpoxy is a reliable and creative partner in problem solving.