

**ELAN-Cast®** resins for

# Power Generation and Distribution



## **Power Generation and Distribution**

## **Product Summary**

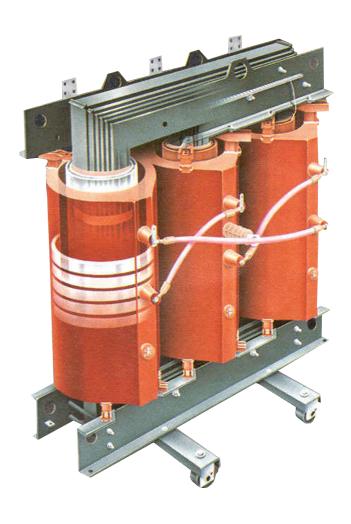
**ELAN-**Cast® **E** epoxy resins are two-component systems that provide electrical insulation with superior environmental protection.

Some are suitable for high temperature applications and offer excellent thermal shock resistance.

### **Product Uses**

- Dry Type Transformers
- Resin-Cast Transformers
- Large Motors
- Generators
- Outdoor Devices







## **Application Methods**

Vacuum Casting



| Product Characteristics   |   |  |             |            |                   |           |   |              |             |
|---|---|--|-------------|------------|-------------------|-----------|---|--------------|-------------|
| at a Glance   |   |  |             | Glass      | Coefficient of    |           | Cure  |              | Max         |
| at a Glaffice   |   | Mixed                                  | Mix         | Transition | Thermal Expansion | Gel Time  | Schedule  | Thermal      | Service     |
|   |   | Viscosity                              | Ratio       | Temp       | (ppm/°C)          | 125°C     | for Optimum                                     | Conductivity |             |
|   |   | cP at 25°C                             | (by weight) | (Tg)       | before/after Tg   | (minutes) | Properties                                      | W/m.K        | (IEC 60085) |
| ELAN-Cast <sup>®</sup> E 88<br>Resin<br>ELAN-Cast <sup>®</sup> C 89<br>Hardener               | Two-component, rigid, filled epoxy resin system. Heat cure. UL 94 V0 listed. High heat deflection temperature.  | 50000 - 70000<br>400 - 800<br>@ 90°C   | 100 : 114   | 97 - 103°C | 45 / 155          | 7 - 13    | 4 h at 80°C +<br>4 h at 120°C +<br>4 h at 150°C | 0.95 - 1.05  | 180°C       |
| ELAN-Cast <sup>®</sup> E GRC 81<br>Black Resin<br>ELAN-Cast <sup>®</sup> C GRC 81<br>Hardener | Two-component, fast-setting, filled epoxy resin system. 1:1 mixing ratio (by weight). Heat cure. Thermal shock resistant. UL system listed.   | 10000 - 15000                          | 100 : 100   | 85 - 90°C  | 40 / 140          | 3 - 5     | 4 h at 80°C +<br>4 h at 120°C +<br>4 h at 150°C | 0.60 - 0.70  | 155°C       |
| ELAN-Cast <sup>®</sup> E 494 RQ<br>Red Resin<br>ELAN-Cast <sup>®</sup> C 494 RQ<br>Hardener   | Two-component, filled epoxy resin system. 1:1 mixing ratio (by weight). Heat cure. Suitable for high voltage distribution transformers, chokes, etc. Thermal shock resistant. UL system listed. | 25000 - 30000                          | 100:100     | 35 - 40°C  | 85 / 23 <b>5</b>  | 12 - 18   | 4 h at 80°C +<br>4 h at 120°C +<br>4 h at 150°C | 0.40 - 0.50  | 180°C       |
| ELAN-Cast <sup>®</sup> E 617 FR<br>Resin<br>ELAN-Cast <sup>®</sup> C 161<br>Hardener          | Two-component,<br>filled epoxy resin<br>system. 1:1 mixing<br>ratio (by weight).<br>Heat cure. UL 94 V0<br>listed.  | 50000 - 70000<br>4600 - 6600<br>@ 55°C | 100 : 100   | 35 - 40°C  | 75 / 200          | 22 - 32   | 4 h at 80°C +<br>4 h at 120°C +<br>4 h at 150°C | 0.35 - 0.45  | 155°C       |
| ELAN-Cast <sup>®</sup> E 43-5701<br>Resin<br>ELAN-Cast <sup>®</sup> C 402<br>Hardener         | Two-component,<br>semi-rigid, filled<br>epoxy resin system.<br>Heat cure. Resilient<br>for casting large<br>collector rings.<br>Suitable for outdoor<br>applications.                           | 12000 - 17000                          | 100 : 25    | 40 - 46°C  | 80 / 175          | 25 - 30   | 4 h at 80°C +<br>4 h at 120°C +<br>4 h at 150°C | 0.58 - 0.68  | 180°C       |

Alternate cure schedule may be possible for your application. Consult with your ELANTAS PDG representative.

For More Information Ask For Our Technical Data Sheets.

## **ELANTAS PDG, Inc.**

#### **ELANTAS Electrical Insulation**

Around the world, ELANTAS Electrical Insulation companies are respected as market leaders in the development and manufacturing of impregnating resins (varnishes), wire enamel, potting compounds and casting resins for a number of electrical, industrial, aerospace and civil applications. No matter what your challenge, be assured that ELANTAS Electrical Insulation products will meet your most demanding needs.

#### **ELANTAS PDG, Inc.**

Today, ELANTAS PDG, Inc. is recognized as the premier global supplier of specialty polymers for the electrical and electronic industries. ELANTAS PDG, Inc. is a member of ALTANA's ELANTAS Electrical Insulation Division based in Wesel, Germany.

With the support of ALTANA and by working with other ALTANA divisions, we offer a unique global approach to research, manufacturing and service that translates into more creative solutions, dependable supply and consistently high quality.

Many ELANTAS PDG, Inc. products are recognized as components of electrical insulation systems in accordance with UL 1446. ELANTAS PDG, Inc. is registered to ISO 9001 and ISO/TS 16949.

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ELANTAS PDG, Inc. headquarters in St. Louis, Missouri

ELANTAS Electrical Insulation companies are strategically located throughout the world to meet the primary insulation, secondary insulation and electronic and engineering materials needs of our customers.

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