ELANTAS

Technical Data Sheet

Electrical Insulation Materials

# ELAN-Tron® E 203 DP Black Resin
# ELAN-Tron® C 301 Hardener

## Two-Component Epoxy Sealer Paste

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# ELAN-Tron® E 203 DP Black Epoxy Sealer Paste

## Product Description

ELAN-Tron® E 203 DP Black Epoxy Sealer paste is a two-component, high-solids epoxy system.

## Areas of Application

Bonds to a variety of substrates, including ceramic bushings, diesel engine A-frames, leaking transformers, and glass lined vats.
It can also be used in layers with glass cloth to build cure-in-place laminates.

## Features and Benefits

- Room temperature or low heat cure
- Resistant to chemicals
- High solids to provide heavy build
- High adhesive strength
- Thixotropic for low run-off

## Application Methods

- Apply with a spatula or wooden stirrer

## Transportation / Storage

Store below 25°C / 77°F in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for twelve (12) months from the date of shipment.

Failure to store this product as recommended above may lead to deterioration in product performance.

Mix individual components thoroughly before use

## Health and Safety

Refer to the Safety Data Sheet.

See ELANTAS PDG Technical Bulletins *TI-100 - Handling Precautions for Epoxy Resins* and *and TI-4005 - Epoxy Reaction Potential Hazards* for additional information.

## Typical Properties of Material as Supplied

| Property | Conditions | Value | | Units |
|---|---|---|---|---|
| | | **ELAN-Tron® E 203 DP Black Resin** | **ELAN-Tron® C 301 Hardener** | |
| Viscosity | 25°C / 77°F | paste | 5 - 10 | cP |
| Weight per Gallon | 25°C / 77°F | 13.4 – 13.8 | 7.7 - 8.0 | pounds |
| Flash Point | ASTM D93 | > 94<br>> 201 | > 94<br>> 201 | °C<br>°F |
| Mix Ratio | Parts by weight<br>Parts by volume | 100<br>100 | 5<br>8.7 | |

## Typical Properties of Mixed Material

| Property | Conditions | Value | Units |
|---|---|---|---|
| Pot Life – 200 mL | 25°C / 77°F | 1 - 2 | hours |

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## Application / Curing Schedule

For best results, prepare the surface with sanding and solvent wash before use. For surface areas requiring release, apply a release agent and allow to dry prior to application of this epoxy.

Mix Resin and Hardener in specified ratio until homogeneous.

Cure 24 hours at 25°C / 77°F. Allow 5 - 7 days to develop full properties.

Alternatively air dry until tack free, followed by a post cure of 4 hours at 65°C / 149°F

The cure schedules above are based on time after the unit reaches the specified temperature and are recommendations only. The user is responsible for determining the optimum cure conditions for their application.

## Typical Mechanical Properties

| Property | Test Method | Conditions | Value | Units |
|---|---|---|---|---|
| Lap Shear | ASTM D1002 | 25°C / 77°F | 2500 | psi |
| Tensile strength | ASTM D 638 | 25°C / 77°F | 8000 | psi |
| Compressive Strength | ASTM D 638 | 25°C / 77°F | 16,000 | psi |
| Flexural Strength | ASTM D 790 | 25°C / 77°F | 18,000 | psi |
| Hardness | Barcol | 25°C / 77°F | 35 | |

## Typical Electrical Properties

| Property | Test Method | Conditions | Value | Units |
|---|---|---|---|---|
| Dielectric Strength | ASTM D149 | 25°C / 77°F - 20 mils | 500 | volts/mil |
| Dielectric Constant | ASTM D150 | 1 kHz - 25°C / 77°F | 3.3 | |
| Volume Resistivity | ASTM D257 | 25°C / 77°F | $2.0 \times 10^{15}$ | ohm-cm |

The above properties are typical values and are not intended for specification use.