

**Application Guideline
for
Resin Cast Transformer**



1. Recommended ELANTAS Insulation systems

Systems	Distinctive Features
Shimorez 400 + Elan-tron WH 95+ Shimoplast 08 + Acc.01 + Filler	Unfilled, EP Resin System for Casting, Heat Curing.
Dobeckot 520 F + Hard.7055 + Flexibilizer EP 09 + Acc.803 M + Filler	Unfilled, EP Resin System for Casting, Heat Curing.

2. Application Method: Potting Under Vacuum

Filler Addition – Preparing Liquid Resin Systems:

- Take Resin + Plasticizer + Hardener + Pigment in mixing chamber. Heat mixture to 60-70 °C. Add required / suggested quantity of filler and mix entire mixture under vacuum of 0.5 to 5 mbar for 2 to 3 hours depending upon quantity & mixing equipment. Thereafter add proportionate quantity of accelerator in the mixing chamber and continue degassing for further 30 min. Mixture is now ready for pouring in the mould.
- It is advisable to pre-heat the mould & components at 100 – 110 °C and carry out the pouring of mixture in mould under vacuum or vacuum after pouring the mixture in mould, depending upon the end product.
- Follow the suggested curing schedule. (Refer Sr.No -4)

Alternatively in plant having two separate mixers (for large castings)

- In such plants Resin and Hardener are separately mix with respective quantity of fillers and additives under vacuum.
- Take Resin + Plasticizer in Resin mixer. Heat mixture to 60-70 °C. Add required / suggested quantity of Filler + Pigment and mix entire mixture under vacuum of 0.5 to 5 mbar for 2 to 3 hours depending upon quantity & mixing equipment.
- Take Hardener + Accelerator + Filler in Hardener mixer. Heat mixture to 50-60 °C. Add required / suggested quantity of Filler and mix entire quantity under vacuum of 0.5 to 5 mbar for 2 to 3 hours depending upon quantity & mixing equipment.
- Now Individual premixes are ready. Metering pump will then feed these premixes to the final mixer or a continuous mixer. The individual premixes can be stored at elevated temperature (about 60 °C) for up to 1 week, depending on formulation. Intermittent agitator/stirring during storage is advisable to prevent the filler settling.
- It is advisable to pre-heat the mould & components at 100 – 110 °C and carry out the pouring of mixture in mould under vacuum or vacuum after pouring the mixture in mould depending upon the end product.
- Follow the suggested curing schedule. (Refer Sr.No -4)

3. Known equipment manufacturers



1. HUBERS VM GmbH
 2. Vacuum Plant & Instrument MFG. Co. Ltd.Pune.
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4. Recommended curing schedule:

Products / Systems	Curing Schedule
Shimorez 400 + Elan-tron WH 95 + Shimoplast 08 + Acc.01+ Filler	6-8 h /80 ° C + 6-8 h / 120 ° C.
Dobeckot 520 F + Hard.7055 + Flexibilizer EP 09 + Acc.803 M + Filler	6-8 h /80 ° C + 6-8 h / 120 ° C.

5. Do's:

- Always store the Resin & Hardener under shed as received.
- The Resin & Hardener must be kept away from any exposure to humidity.
- Stir the pre-filled resin part before use.
- Ensure that the lids of resin and Hardener containers are closed tight after use.
- Work place should be clean and well ventilated.
- Workmen should wear protective goggles and gloves.
- Workmen wash their hands with soap & water on completion of job.
- In case of splashes in eyes, wash with plenty of water & take immediately medical help.

Don'ts:

- Avoid storage outside.
- Resin & Hardener should not be stored together.
- Don't keep Resin & Hardener containers open.
- Don't inhale the Hardener.
- Do not eat at work place.

6. Technical Data Sheets (TDS) and Material Safety Data Sheets (MSDS)

TDS & MSDS of relevant products will be available upon request.

7. Company Profile

ELANTAS Beck India Ltd. is a group company of ELANTAS Electrical Insulation Division of ALATNA AG, Germany, an International Specialty Chemical Group currently having 42 operational companies and 46 application and research laboratories worldwide.

In 2006, ELANTAS Beck India completed 50 years of operations in India. The company manufactures a wide range of specialty chemicals for electrical insulation and construction industries. In pursuit of ALATNA's global commitment, ELANTAS Beck India develops new products and processes to meet the changing needs of customers; and utilizes its strengths effectively to be MANUFACTURERS OF RELIABILITY.

Our leadership status ensures we translate our leading technological capabilities and consistent quality standards to the advantage of our customers through contemporary and reliable products and solutions.

Our wide products profile is well supported by comprehensive Technical Service, and an All India Authorised Distributor Network.

ELANTAS Beck India Ltd. has been accredited with the International Quality Management System ISO 9001:2000, Environment Management System Certification ISO 14001:2004 and Occupational Health & Safety Management System BS 18001 : 2007.

8. Manufacturing sites in India



Pimpri, Maharashtra



Ankleshwar, Gujarat



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