

## *cenvar* Insulating Varnishes

### Impregnation Process Guide: AIR DRY Method

Follow the recommended procedure for impregnation using *cenvar* Insulating Varnishes, to achieve optimal results.

#### Process Steps for Dipping & Air Dry Method

1. **Varnish Dipping**
  - Place the windings in the varnish tank, ensuring full immersion of the coils.
  - Allow sufficient time for all air bubbles to escape; a clear varnish surface indicates successful air release.
2. **Air Drying**
  - Remove and air-dry the windings, preferably in sunlight, to speed up the curing process.
  - Complete the entire curing schedule before moving to the next steps.
  - For additional protection, apply a second coat after a minimum of 60 minutes of drying.
3. **Accelerated Curing Option**
  - After 1–2 hours of air drying at room temperature, components can be forced dried in a circulating oven at temperatures up to 100°C.

#### Checks

- **Viscosity Monitoring:** Regularly check varnish viscosity using FORD CUP NO.4. Add the recommended thinner as needed to maintain optimal viscosity, adjusting under constant stirring.
- Periodically add fresh varnish.
- Periodically clean the varnish tanks, pipelines, ovens. Scrap off the dried varnish and any settlements in tanks and ovens.

#### Precautions

- **Storage & Handling:**
  - Keep varnish containers tightly sealed and tanks covered to prevent solvent evaporation and premature curing.
  - Regularly monitor and maintain varnish viscosity and solids content within recommended limits.
  - Add thinner as needed to maintain desired viscosity.

## Storage & Safety

- **Storage Conditions:**
  - Store varnishes and thinners in a cool, dry place below 30°C, away from flammable materials.
  - Use CO<sub>2</sub> Foam or Dry Chemical Powder Fire Extinguishers for fire safety.
- **Work Area Safety:**
  - Ensure good ventilation with exhaust fans in ovens and work areas to prevent fume buildup.
  - Keep exhaust ducts clear and avoid direct exposure to vapours when opening oven doors.
- **Personal Protection:**
  - Avoid skin and eye contact; if contact occurs, wash with soap and water and seek medical help if irritation persists.
  - Use adequate ventilation to avoid inhalation of vapours. If inhaled, move to fresh air, and seek medical assistance if necessary.
  - For accidental ingestion, do not induce vomiting; drink water and seek medical attention immediately.
- **Housekeeping:**
  - Keep the varnishing area clean and dry. Remove spills immediately, and clean varnish tanks periodically.
  - Use gloves and breathing protection while handling varnishes.

**Additional Information:** For detailed safety information, request the Material Safety Data Sheet (MSDS).

*This guide provides general recommendations based on our knowledge and experience. Users should determine product suitability for specific applications. We assume no liability for technical outcomes or damages arising from the use of this procedure.*