DESCRIPTION OF THE PROCESS OF IMPREGNATION AND DRYING

Product type**: Encapsulated transformer**

Impregnation and dried process is in our company strictly controlled as the basic point in our products quality, avoiding possible problems such us:

- Adherence of the resin is absent with the plastic
- Air bubbles inside the component
- Fissures
- Penetration of the resin is absent

Impregnation process on encpsulated transformers

- **Preparation of the components in the machine vats of mixture**
  · Degassing of the resin and the flexibilizer and colouring in the vats of mixture during 4horas to a pressure of 1mbar. This process extracts the air that contains the mixture inside the vat, mixing sayings components during the time specified previously, assuring the perfect condition for the later process.
  · Degassing of the hardener for 4hours to a pressure of 1mbar, the same process as procedure previously described

- **Warm-up of the component**
  · Process of warm-up of the component and plastic before resin for 3 hours to 75º (graphic1). This process will improve the penetration of the resin and it prevents that in the process of polymerization there are big differences of temperature, avoiding breaks in the plastic and ensuring the adherence of the resin with the plastic.

- **Impregnation**
  · Temperature of the mixture between 50-60º
  · Emptiness of the cabin of impregnation

  This is the process of filling of the component with the mixture of already prepared resin, the temperature of the mixture avoids contractions and the process of emptiness extracts all the air of cabin ensuring that do not remain hollow of air inside the piece, since on having treated itself about an electrical component with high tensions air residues cannot stay inside the resin, this process assures COMPLETELY that do not produce air bubbles.

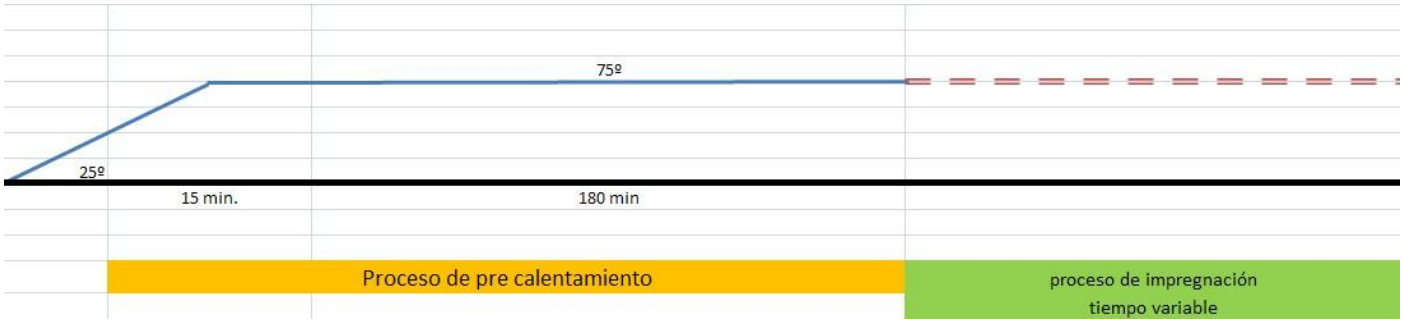
- **Process of drying**
  · This process will dry the resin up to turning it in occurred. Once the process is completed the component will be totally protected and will assures its reliability.
  · **Process of staggered dried:** 1st stage – 2,5 hours of duration to 80º (graphic 2)
  2nd stage – 4,5 hours of duration to 95º (graphic 3)

- **Process of cooling**
  · Once finished the process of drying the components were left to cool at environment temperature before going on to the electrical controls of quality of 100 %

DESCRIPTION OF THE PROCESS OF IMPREGNATION AND DRYING

Graphic 1

Warm-up process & Impregnation process



Impregnation process

Impregnation process
Changeable period of time

Graphic 2

Drying process 1st stage

Graphic 3

Drying process 2st stage