CURING TIME

TECHNICAL DATASHEET

Curing time provides information on the curing behavior of resins capable of heat-hardening, namely the reaction time at a given temperature after which resins (solid, liquid, or solvent containing resins of a known concentration) change the state.

Both the apparatus and the test manuality derive from DIN 16916 02 OC, which applies only to phenolic resins, however the apparatus and the test can be utilized for all two component resins such as epoxy or polyesther resins.

Basically the equipment consists of a thermo controller which keeps at constant temperature a heavy stainless steel platen.

Four hemispheric cavities are located on the top surface of the stainless steel platen as well as a recess for a control thermometer.

The test can be run in a temperature range between room temperature and + 300°C.



The test manuality is very simple.

Once the test temperature has been reached, introduce a known quantity of the resin (about 0.5 g ± 0.05) in one of the cavities starting at the same time a stop watch.

Add the exact required amount of catalyst/hardener and stir carefully the mixture of the two components with a glass bar.

After stirring for 1 min. let rest for 10 sec. continue alternating stirring and rest periods until when consistent and permanent filaments stick to the glass bar.

At this point stop stirring and continue probing the surface of the mixture with the thinned end of the glass bar until the final hardness has been reached, reading the time on the stop watch.

The dosage of the resin and catalist/hardener can be done volumetrically utilizing syringes of proper dimensions and precision.

For a more complete description of the test method please refer to the above reported original standard.

Technical features:

- Metal structure painted with epoxy enamel, finning for aereation.
- Top platen in thick stainless steel type AISI 304 with four 20 mm dia. hemispheric cavities and a recess for temperature control.
- Copper counterseats including four separate heaters linked to the thermo controller.
- Electronic thermocontrolled , four Triac terminals including micrometric setting of temperatures , liquid crystal luminous display; scale from 0 to 300°C, precision 0.1°C.
- Top platen thermoinsulated with refractory material.
- Protective cover
- Dimensions cm 26 x 26 x 26 h
- Required power: 115 VAC or 230 VAC 50/60 Hz –
- 1 kVA

Optional accessories:

- Hg thermometer scale from 0 to 360°C , precision 0.1°C
- Glass stirrer, dia. mm 4/5, length mm 250.
- Balance Europe 600 CE g.620 div. 0,01 pan dia.150 mm
- Package of 100 syringes, capacity ml 25.
- Timer.

Code	Description
10077000	Curing Time