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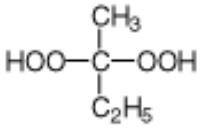
Technical Data Sheet

Polyester Curing

Ketone peroxides (Ambient temperature)

CUROX® M-100



Methyl ethyl ketone peroxide
Liquid mixture, low activity

Description:

Colourless, mobile liquid, consisting of peroxides based on methyl ethyl ketone, desensitised with phthalate plasticiser. This ketone peroxide is used mainly as an initiator (radical source) in the curing of unsaturated polyester and vinyl ester resins.

Technical Data:

Appearance	colourless liquid
Active oxygen	9.5% w/w min.
De-sensitising agent	phthalate plasticiser
Density at 20°C	ca. 1.148 g/cm^3
Viscosity at 20°C	ca. 23 mPa.s
Solubility	Immiscible with water, soluble in phthalates
Critical temperature (SADT)	ca. 60°C
Recommended storage temperature	below 30°C
Maintenance of activity at 25°C	ca. 6 months
Kick off temperature in non-accelerated UP resin	ca. 70°C
Supply Form	5 Kg polyethylene container

Application:

POLYESTER AND VINYL ESTER CURING: Curing agent for polyester and vinyl ester resins at ambient temperature in combination with cobalt accelerators. Dosage 1-3% as supplied, with 0.5-2% of a 1% cobalt solution. "Shelf life" (gel time of resin + peroxide) usually only a few hours depending on temperature and resin type. "Pot life" (gel time of resin + peroxide + accelerator) relatively short, but may be prolonged by adding inhibitor. Other grades include Curox M-200 and M-300.

CURING PERFORMANCE: Curox M-100 is recommended for vinyl ester resins, where it gives shorter gel and cure times relative to those obtained using Curox M-200 or Curox M-300; in polyester resins, longer gel and cure times are obtained. Moderate evolution of heat, therefore relatively tension-free curing; moderate mould release times. Low ambient temperatures retard complete curing considerably. Action: with polyester resins, use a more active grade of Curox; with vinyl ester resins, add amine accelerator, although yellow-brown discolouration in finished parts may occur.

PROCESSING METHODS: Particularly hand lay-up, spray lay-up, centrifugal casting, filament winding, casting of resins, and surface coatings (putties, fillers, gelcoats and topcoats).

SPRAY EQUIPMENT: Use spray equipment in accordance with manufacturer's instructions. Ensure all safety devices are operational. Do not clear gun by spraying MEKP into the air.

(Status: September 2008)