

# CUROX<sup>®</sup> M-302

**Methyl ethyl ketone peroxide**

**CAS#1338-23-4**

**Liquid mixture**

## Description

Colourless, mobile liquid, consisting of peroxides based on methylethylketone, essentially desensitised with aliphatic ester. This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins.

Main application: curing of moulded parts at ambient temperature in combination with cobalt accelerators.

## Technical data

Appearance	Colourless liquid
Active oxygen	Approx 9.5 % w/w
De-sensitising agent	Aliphatic ester
Density at 20°C	Approx. 1.01 g/cm <sup>3</sup>
Viscosity at 20°C	Approx. 13 mPa.s
Miscibility	immiscible with water, miscible with ester, UP/VE-resins
Critical temperature (SADT)	Approx. 60°C
Cold storage stability	Liquid to below -25°C
Recommended storage temperature	Below 20°C
Maintenance of activity at 30°C as from date of production	6 months

**This product is in compliance with the ElektroG (EU-Directives: RoHS 2002/95/EG, WEEE 2002/96/EG)**

## Application

### **POLYESTER CURING:**

Standard curing agent for all UP resin types at ambient temperature in combination with cobalt accelerators. Standard dosage level: 1-3% as supplied, with 0.5-2% of a 1% cobalt solution. "Shelf life (gel time of resin + peroxide) usually 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 TC-510. Thus, the mould release factor (fMR = tMR/tgel) can be improved considerably.

### **CURING PERFORMANCE:**

Moderate evolution of heat. Relatively long mould release time, moderate mould release factors. Temperatures below 20°C prolong curing times considerably, alternatively cobalt / amine accelerators should then be used.

### **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.

## Standard Packaging

The standard package size of Curox® M-302 are 5 kg and 30 kg polyethylene bottles.

## Disclaimer

This information and all further technical advice are reflecting our present knowledge and experience based on internal tests with local raw materials with the purpose to inform about our products and applications. The information should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. We reserve the right to make any changes according to technological progress or further developments.

Application and usage of our products based on our technical advice is out of our control and sole responsibility of the user. The user is not released from the obligation to conduct careful inspection and testing of incoming goods in order to verify the suitability for the intended application.

### Activity:

"Cobalt Curing" after DIN 16945 at 25°C with OPA resin (20g in a test tube)						
Formulation (parts by weight)						
Medium reactive resin type (OPA)	100	100	100	100	100	100
CUROX® M-302	2	2	2	2	1	1
Accelerator C-101	2	1	0.5	0.2	1	0.5
Curing data						
Gel time $t_{gel}$ [min]	1.5	2.5	5.0	19.5	6.0	12.5
Curing time $t_{max}$ [min]	15.0	16.0	20.5	45.5	34.0	51.5
Peaktemperature $T_{max}$ [°C]	141	143	139	112	107	88

