

CUROX[®] M-402

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: casting of buttons or centrifugal casting of button sheets at ambient temperature in combination with small amounts cobalt accelerator.

Technical data

Appearance	Colourless liquid
Active oxygen	Approx 9.9 % w/w
De-sensitising agent	Aliphatic ester
Density at 20°C	Approx. 1.04 g/cm ³
Viscosity at 20°C	Approx. 21 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 30°C
Maintenance of activity at 30°C as from date of production	6 months

Application

POLYESTER CURING:

Curing agent for all UP resin types at ambient temperature in combination with cobalt accelerators. Standard dosage level: 1-3% as supplied, with 0.2 — 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) very short, even with small quantities of accelerator.

CURING PERFORMANCE:

Moderate evolution of heat, therefore curing with low internal stress, relatively long mould release times. By using minimal accelerator levels, there will be only slight discolouration in the finished part.

PROCESSING METHODS:

Especially developed for short gel times even with low levels of cobalt, i.e. especially for articles which should not show discolouration.

Suitable for such processes as casting or centrifugal casting of UP buttons or button sheets and continuous impregnation of (corrugated) sheets.

Standard Packaging

The standard package size of Curox® M-402 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-402	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	2.0	4.0	15.5	4.0	7.0
Curing time t_{max} [min]	12.5	13.0	16.0	34.0	24.5	28.5
Peaktemperature T_{max} [°C]	145	147	147	132	115	116

