

CUROX[®] M-102

Methyl ethyl ketone peroxide
CAS#1338-23-4
Liquid mixture

Description

Colourless, mobile liquid, consisting of peroxides based on methyl ethyl ketone, essentially desensitised with aliphatic ester. This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins and vinyl ester resins. Main application: curing of large moulded parts at ambient temperature in combination with cobalt accelerators.

Technical Data

Appearance	Colourless liquid
Active oxygen	Approx 8.6 % w/w
De-sensitising agent	Aliphatic ester
Density at 20°C	Approx. 1.01 g/cm ³
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 30°C
Maintenance of activity at 30°C as from date of delivery	4 months

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

Application

POLYESTER CURING:

Curing agent for UP resins at ambient temperature in combination with cobalt accelerators. Suitable for all UP resin types and for vinyl ester resins. Standard dosage level: 1-3% as supplied, with 0.5-2% of a 1% cobalt solution (or alternatively cobalt amine accelerator). "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 long, especially, when ortho- or iso-phthalic resins are to be cured.

CURING PERFORMANCE:

Moderate evolution of heat, therefore low internal stress. Recommended for vinyl ester (VE) resins. Relatively short mould release times, i.e. good mould release factors (fMR = tMR/tgel). Temperatures below 20°C and/or some special resin types retard curing considerably. Action: with UP resins use more active grade (CUROX M-202, 302, 402); with VE resins, add amine accelerator.

PROCESSING METHODS:

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

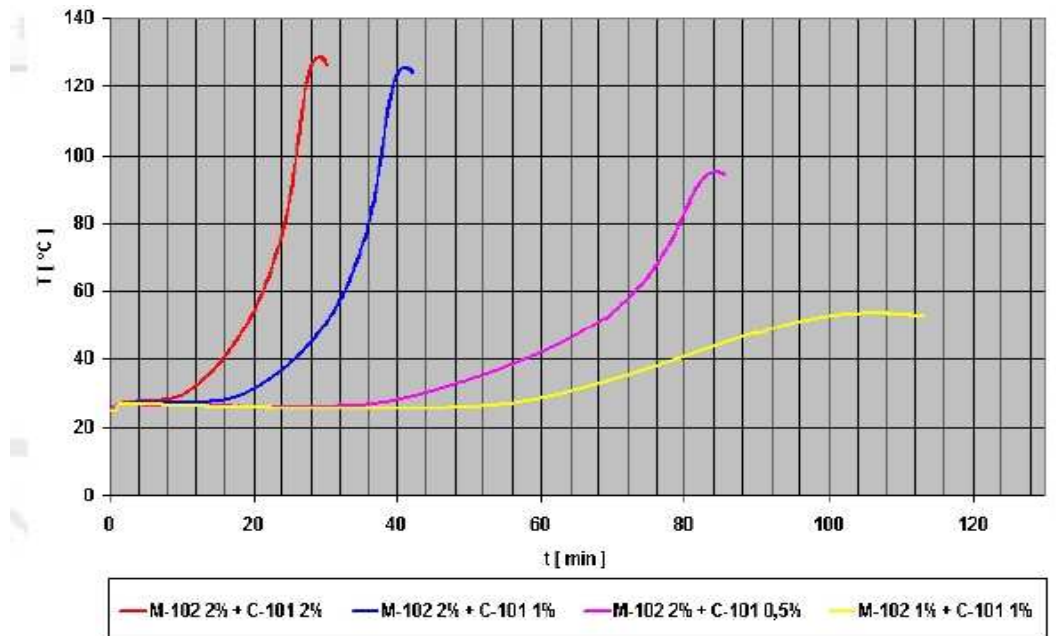
SPRAY EQUIPMENT:

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.

Measurements

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-102	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]	100	185	430	>180	625	>180
Curing time t_{max} [min]	290	410	835	-	105	-
Peaktemperature T_{max} [°C]	130	125	96	-	54	-



Further information on suitable curing agents for unsaturated polyester resins is given in our application brochures on this subject

Standard Packaging

The standard package size of Curox® M-102 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.

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