

CUROX[®]M-402R

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

Description

Red coloured, 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. Special advantages: Due to the red coloured peroxide an optimal homogenisation in the resin mixture is ensured. After the curing reaction the red colouration of the compound is no longer noticeable.

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

Technical Data

Appearance	Red 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. 22 mPa.s
Refractive index at 20°C	1.434
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	6 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 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:

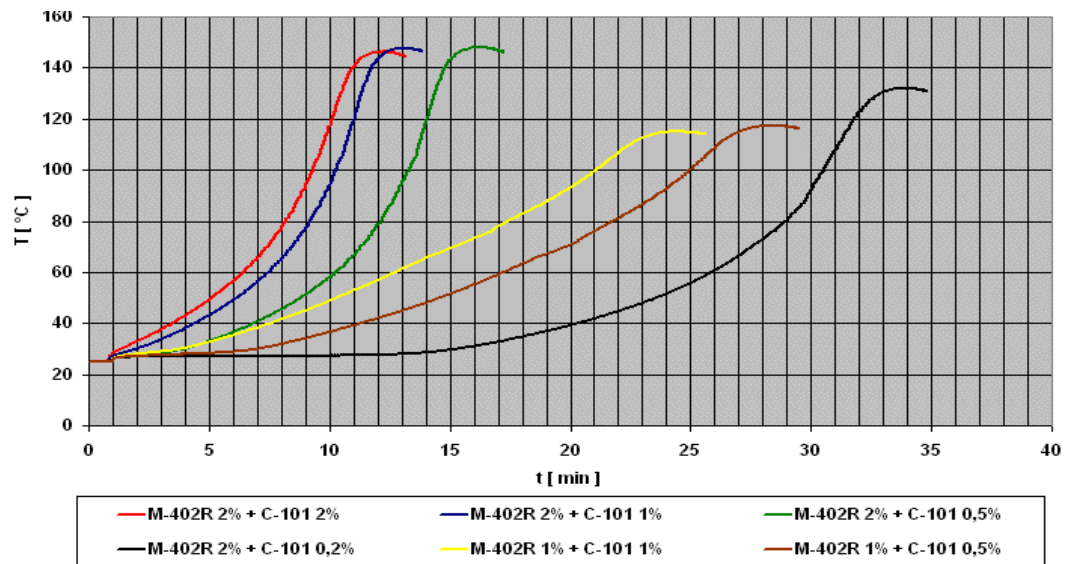
Moderate evolution of heat, therefore curing with low internal stress, relatively long mould release times.

PROCESSING METHODS:

Especially developed for short gel times even with low levels of cobalt.
Suitable for such processes as casting or centrifugal casting of UP buttons or button sheets and continuous impregnation of (corrugated) sheets.

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-402R	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



Standard Packaging

The standard package size of Curox® M-402R are 5 kg and 22,5 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.

United Initiators
EU
T: +49 89 74422 237
F: +49 89 74422 6237
cs-initiators.eu@united-in.com

United Initiators
Nafta
T: +1 800 231 2702
F: +1 440 323 0898
cs-initiators.nafta@united-in.com

United Initiators
China
T: +86 20 6131 1370
F: +86 139 2503 8952
cs-initiators.cn@united-in.com

United Initiators
Australia
T: +61 2 9316 0046
F: +61 2 9316 0034
cs-initiators.au@united-in.com

www.united-initiators.com

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