

CUROX[®]M-303

Methylethylketonperoxid
CAS#1338-23-4
Flüssiggemisch

Beschreibung

Farblose, leicht bewegliche Flüssigkeit, bestehend aus Peroxiden auf Basis von Methylethylketon, phlegmatisiert mit Phthalat. Dieses Ketonperoxid eignet sich als Initiator (Radikalspender) für die Härtung von ungesättigten Polyester- und Vinylesterharzen. Hauptanwendung: Gelcoats, Härtung von Formteilen bei Umgebungstemperatur in Kombination mit Cobaltbeschleuniger.

Technische Daten

Aussehen	Farblose Flüssigkeit
Aktivsauerstoff	Ca. 9.1 % w/w
Freier Wasserstoffperoxidgehalt	Ca. 1.7 % w/w
Wassergehalt	Ca. 1.5 % w/w
Phlegmatisierungsmittel	Dimethylphthalat
Dichte bei 20 °C	Ca. 1.1 g/cm ³
Viskosität bei 20 °C	Ca. 20 mPa.s
Löslichkeit	Mischbar mit Alkohol, Phthalaten
Kritische Temperatur (SADT)	Oben 60 °C
Kältebeständigkeit	Unter -20 °C
Empfohlene Lagertemperatur	0 bis 30 °C
Lagerstabilität ab Datum der Anlieferung bei 30 °C	6 Monate

Anwendung

POLYESTERHÄRTUNG:

Standard-Kalthärter für UP-Harze bei Umgebungstemperatur in Kombination mit Cobalt-Beschleuniger. Vor allem für Harztypen auf Basis von Ortho- und Iso-Phthalsäure geeignet. Dosierung: 1-3 % in Lieferform sowie 0.2-2 % einer 1%igen Cobaltlösung. Geeignet auch für Gelcoats mit verbesserter Osmosebeständigkeit und niedrige Porosität durch niedrigen Wasser- und Wasserstoffperoxidgehalt.

"Lagerzeit" (Gelierzeit von Harz + Peroxid) normalerweise nur wenige Stunden, abhängig von Temperatur und Harztyp. "Topfzeit" (Gelierzeit von Harz + Peroxid + Beschleuniger) relativ kurz, aber sehr gut regelbar durch Zusatz von Inhibitor tert. Butylcatechol.

HÄRTUNGSSCHARAKTERISTIK:

Mäßige Wärmeentwicklung, daher relativ spannungsarme Härtung, relativ lange Entformzeiten, d.h. mäßiger Entformfaktor. Temperaturen unter 20 °C verlängern die Härtungszeiten sehr stark, alternativ sollten dann Cobalt/Amin-Beschleuniger eingesetzt werden.

ARBEITSVERFAHREN:

V.a. Handauflegen, Harz/Faser-Spritzen, Schleudern, Wickeln, Gießen und Oberflächen Beschichtungen (Spachtel, Füllmassen, Gel und Topcoats).

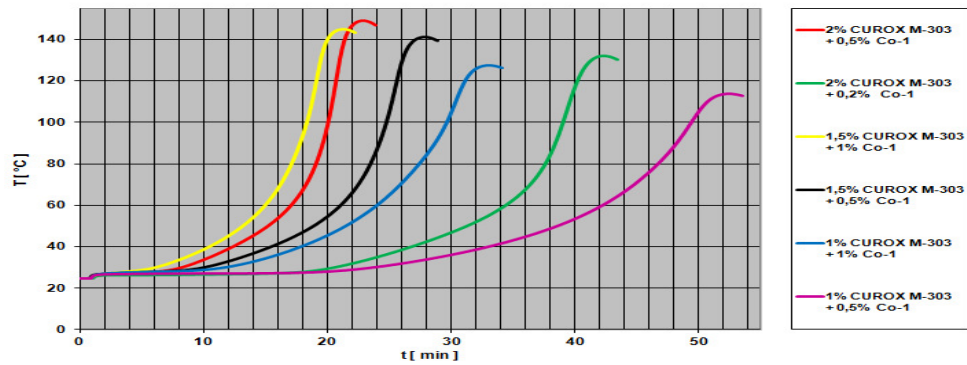
SPRITZWERKZEUG:

Nur gemäß den Vorgaben des Herstellers einsetzen.

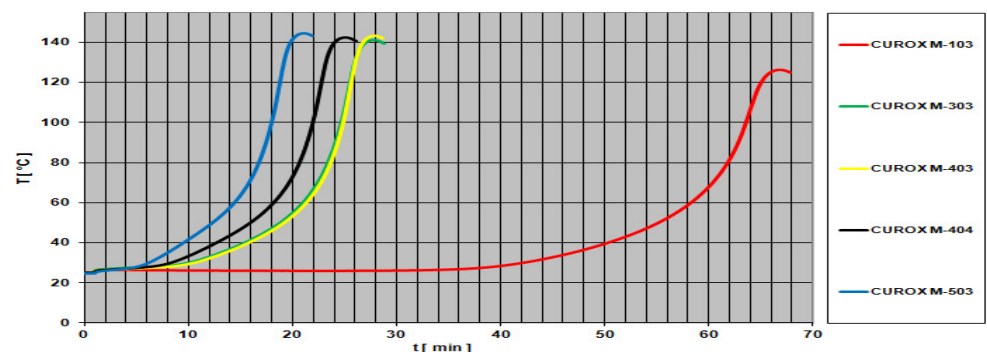
Alle sicherheitsvorkehrungen treffen. Spritzpistole nicht mittels Versprühen von MEKP in die Luft reinigen.

Weitere Information über geeignete Härter für ungesättigten Polyesterharze wird beschrieben in unserem Anwendungsbroschüre diesem Thema.

Reaktivität:



Härtung nach DIN 16945 (20g OPS-Harz im doppelwandigen Reagenzglas bei 25 °C)							
Mittelreaktiver Harztyp (OPS)		100	100	100	100	100	100
CUROX®M-303	[Vol-%]	2.0	2.0	1.5	1.5	1.0	1.0
BÜFA® Accelerator Co 1	[Vol-%]	0.5	0.2	1.0	0.5	1.0	0.5
Härtungsdaten							
Gelierzit 25 -30 °C t_{gel}	[min]	8.0	20.5	6.0	10.0	11.5	23.5
Gelierzit 25 -35 °C t_{gel}	[min]	10.5	24.0	8.5	13.0	15.5	29.0
Härtungszeit t_{max}	[min]	23.0	42.5	21.0	28.0	33.0	53.0
Peaktemperatur T_{max}	[°C]	149	132	145	141	127	114



Härtung nach DIN 16945 (20g OPS-Harz im doppelwandigen Reagenzglas bei 25 °C)						
Mittelreaktiver Harztyp (OPS)		100	100	100	100	100
CUROX [®] M-103	[Vol-%]	1.5				
CUROX [®] M-303	[Vol-%]		1.5			
CUROX [®] M-403	[Vol-%]			1.5		
CUROX [®] M-404	[Vol-%]				1.5	
CUROX [®] M-503	[Vol-%]					1.5
BÜFA [®] Accelerator Co 1	[Vol-%]	0.5	0.5	0.5	0.5	0.5
Härtungsdaten						
Gelierzeit 25 - 30 °C t _{gel}	[min]	42.0	10.0	10.5	8.5	6.0
Gelierzeit 25 - 35 °C t _{gel}	[min]	47.0	13.0	13.5	11.0	8.0
Härtungszeit t _{max}	[min]	66.5	28.0	28.0	25.0	21.0
Peaktemperatur T _{max}	[°C]	127	141	143	143	145

Standard Verpackung

Die Standard Verpackung für CUROX[®]M-303 ist 5 kg und 25 kg Polyethylen Kanister.

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

CUROX® M-303

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

Description

Colourless, mobile liquid, consisting of peroxides based on methylethylketone, essentially desensitised with phthalate plasticiser. This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins. Main application: gelcoats, curing of moulded, casted or winded glasfibre reinforced products at ambient temperature in combination with cobalt accelerators.

Technical Data

Appearance	Colourless liquid
Active oxygen	Approx 9.1 % w/w
Free hydrogenperoxide content	Approx. 1.7 % w/w
Water content	Approx. 1.5 % w/w
De-sensitising agent	Dimethylphthalate
Density at 20 °C	Approx. 1.1 g/cm ³
Viscosity at 20 °C	Approx. 20 mPa.s
Miscibility	Miscible with alcohols, phthalates
Critical temperature (SADT)	Above 60 °C
Cold storage stability	Below -20 °C
Recommended storage temperature	0 to 30 °C
Maintenance of activity at 30 °C as from date of delivery	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 0.5-2% of a 1% cobalt solution.

Suitable also for gelcoats with improved osmosis resistance and lowest porosity due to low water- and hydrogenperoxide content.

"Pot life" (gel time of resin + peroxide + accelerator) relatively short, but may be prolonged by adding Inhibitors, such as tert.butyl catechol.

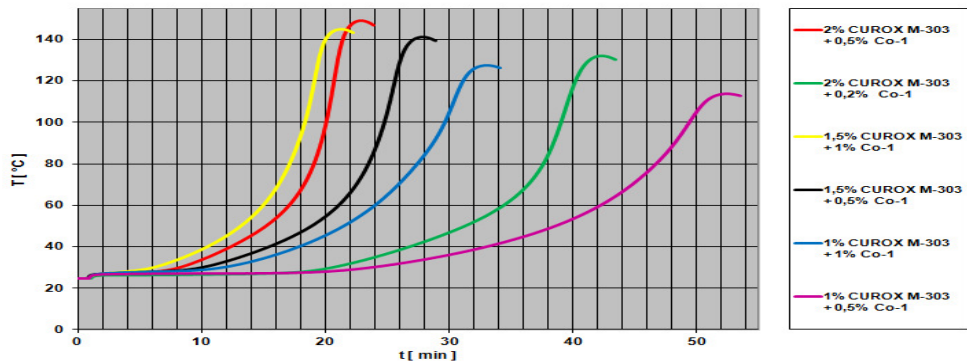
CURING PERFORMANCE: Moderate evolution of heat. Relatively long mould release time, moderate mould release factors. Temperatures below 20 °C prolong curing times considerably, alternatively cobalt / amine accelerators should then be used.

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

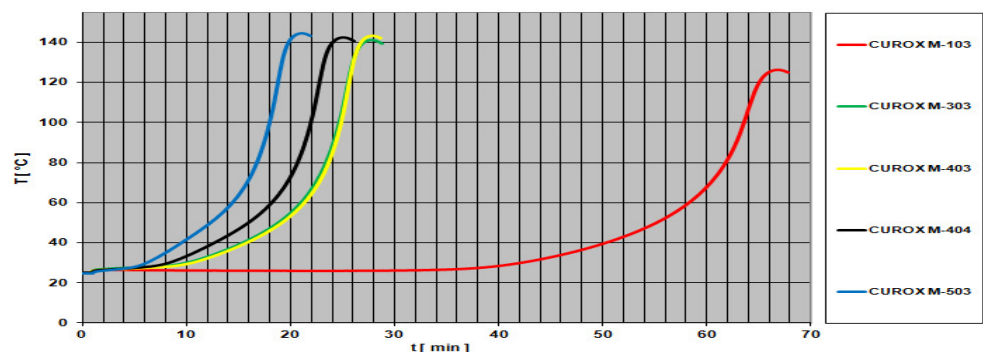
SPRAY EQUIPMENT: Use spray equipment in accordance with manufacturer's instructions. Ensure all safety devices are operational. Do not clear gun by spraying MEKP into the air.

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

Activity:



Measurements in compliance with DIN 16945 at 25 °C with OPA resin (20g in a test tube)						
Medium reactive resin type (OPA)		100	100	100	100	100
CUROX® M-303	[Vol-%]	2.0	2.0	1.5	1.5	1.0
BUFA® Accelerator Co 1	[Vol-%]	0.5	0.2	1.0	0.5	1.0
Curing data						
Gel time 25 -30°C t_{gel}	[min]	8.0	20.5	6.0	10.0	11.5
Gel time 25 -35°C t_{gel}	[min]	10.5	24.0	8.5	13.0	15.5
Curing time t_{max}	[min]	23.0	42.5	21.0	28.0	33.0
Peakttemperature T_{max}	[°C]	149	132	145	141	127



Technical Data Sheet

Measurements in compliance with DIN 16945 at 25°C with OPA resin (20g in a test tube)						
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CUROX® M-103	[Vol-%]	1.5				
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Gel time 25 - 30°C t _{gel}	[min]	42.0	10.0	10.5	8.5	6.0
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Curing time t _{max}	[min]	66.5	28.0	28.0	25.0	21.0
Peakttemperature T _{max}	[°C]	127	141	143	143	145

Standard Packaging

The standard package size of Curox®M-303 are 5 kg and 25 kg polyethylene bottles.

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United Initiators
Nafta
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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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