

Technical Data Sheet (TDS)

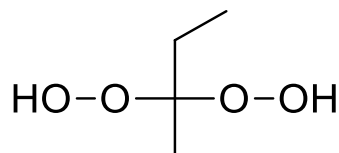
CUROX[®]M-403
Thermoset (TS)



CUROX[®]M-403

Methyl ethyl ketone peroxide
CAS#1338-23-4
Clear liquid

Structural Formula



Description

Colourless, mobile liquid, consisting of peroxides based on methyl ethyl ketone peroxide, essentially phlegmatized with dimethyl phthalate. This ketone peroxide is used as a radical initiator in the curing of unsaturated polyester resins in combination with cobalt accelerators.

Technical Data

Appearance	clear liquid
Desensitising agent	dimethyl phthalate
Active oxygen (AO)	approx. 9.7 % w/w
Hydrogen peroxide	approx. 1.7 % w/w
Water	approx. 1.5 % w/w
Density at 20 °C	approx. 1.1 g/cm ³
Viscosity at 20 °C	approx. 20 mPa·s
Flash point	> 80 °C
Critical temperature (SADT)	approx. 60 °C
Cold storage stability	below -10 °C
Recommended storage temperature	0 °C to 30 °C ●
Storage stability as from date of delivery	6 months

Standard Packaging

25 kg in HDPE canisters

Application

POLYESTER CURING:

Curing agent for all UP-resin types at ambient temperature in combination with cobalt accelerators

Standard dosage level: 1 - 3 % with 0.5 - 2 % of a 1 % cobalt solution

"Pot life" (gel time of resin + peroxide + accelerator) relatively short compared to standard MEKP's but can be prolonged by adding Inhibitor TC 510.

CURING PERFORMANCE:

- Moderate evolution of heat
- Relatively short mould release time
- Higher reactivity in the MEKP-product range

Temperatures below 20 °C prolong curing times considerably, alternatively cobalt / amine accelerators or blends with acetylacetone peroxide should then be used.

PROCESSING METHODS:

Particularly hand lay-up, spray lay-up, centrifugal casting, filament winding, casting of resins, limited for gelcoats

Decomposition Products

Possible detectable decomposition products: methyl ethyl ketone, acetic acid, ethane

Storage

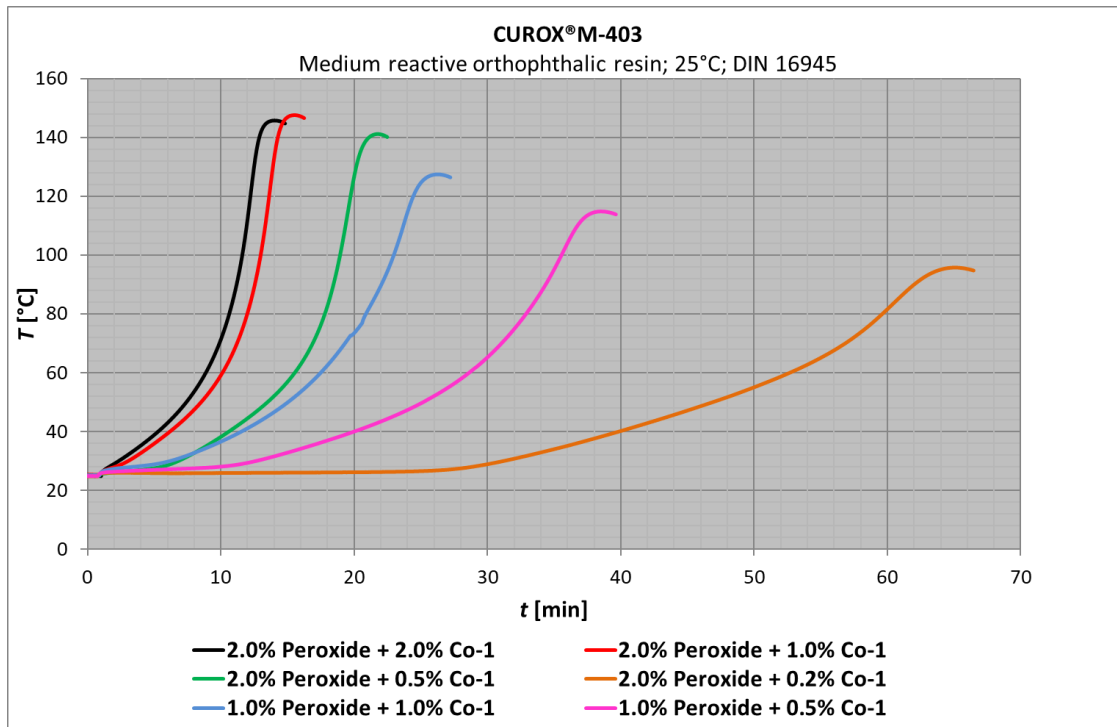
Avoid any source of heat, light, humidity and protect the product from impurities. Keep within save temperature limits.

Technical Data Sheet (TDS)

CUROX®M-403
Thermoset (TS)



Measurements



Formulation (parts per weight)

Resin		100	100	100	100	100	100
CUROX®M-403	[Vol-%]	2.0	2.0	2.0	2.0	1.0	1.0
Co-1	[Vol-%]	2.0	1.0	0.5	0.2	1.0	0.5
Curing Data							
Gel time 25 - 30 °C t_{gel}	[min]	2.3	3.1	6.8	31.2	6.2	12.7
Gel time 25 - 35 °C t_{gel}	[min]	3.9	4.7	8.9	35.8	9.2	16.6
Curing time t_{max}	[min]	14	15.5	21.7	65.1	26.3	38.5
Peak temperature T_{max}	[°C]	145	147	141	95	128	114

Disclaimer:

The information contained herein and all further technical advice that may be provided by United Initiators reflects our current knowledge and experience based on our internal research and development as to our products and applications. United Initiators does not make any warranties about the information provided as to specific properties of products described their suitability for a particular application and representing complete instructions for use. Additionally, United Initiators does not make any warranties in respect of product and shelf-life properties. We are not legally responsible and liable for the use of any information provided, 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, strictly at your own risk and is the sole responsibility of the user. The user is not released from the obligation to conduct careful inspection and testing of incoming products in order to verify their suitability for the intended application.

United Initiators
Europe
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 21 6117 2760
F: +86 139 2503 8952
cs-initiators.cn@united-in.com

www.united-initiators.com