

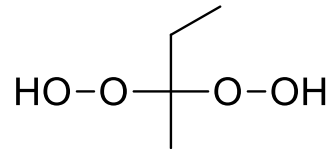
Technical Data Sheet (TDS)

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)	ca. 9.7 % w/w
Hydrogen peroxide	ca. 1.7 % w/w
Water	ca. 1.5 % w/w
Density at 20 °C	ca. 1.1 g/cm ³
Viscosity at 20 °C	ca. 20 mPa·s
Flash point	> 80 °C
Critical temperature (SADT)	ca. 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

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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

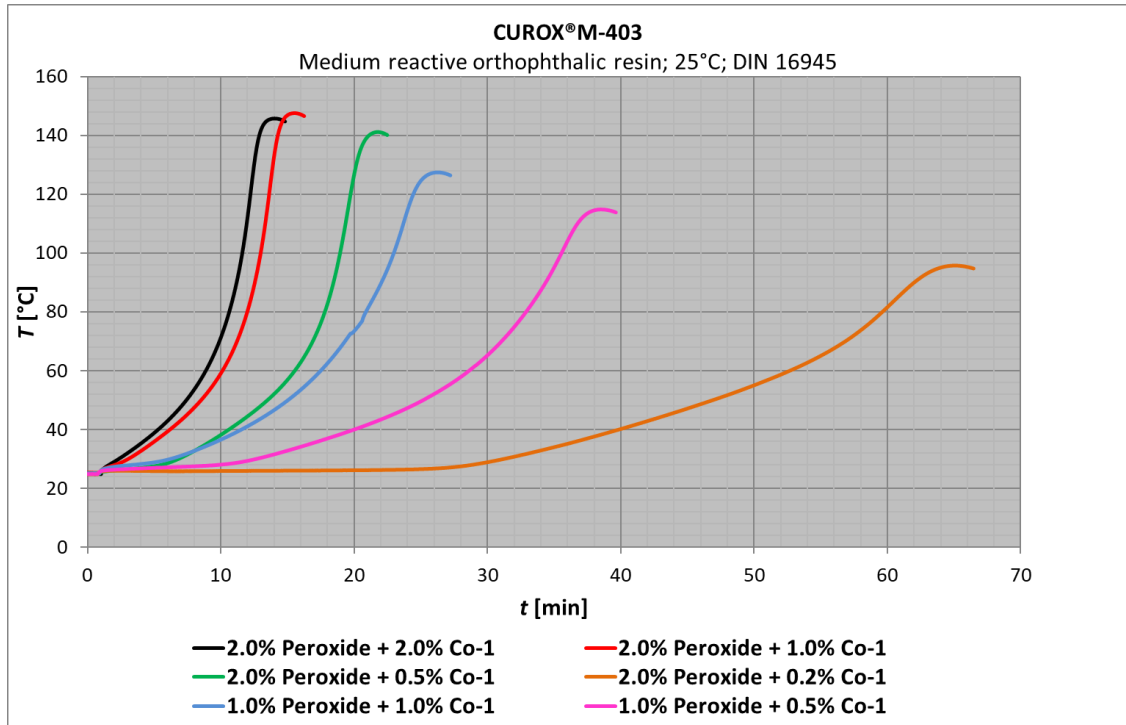
Storage

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

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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

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