

## CUROX®I-200

Methyl isobutyl ketone peroxide  
CAS#37206-20-5  
Liquid mixture, normal activity

### Description

Colourless, mobile liquid, consisting of peroxides based on methyl isobutyl ketone, de-sensitised with aliphatic hydrocarbons. This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins. Main application: curing of large moulded parts at elevated temperatures (60-120°C).

### Technical Data

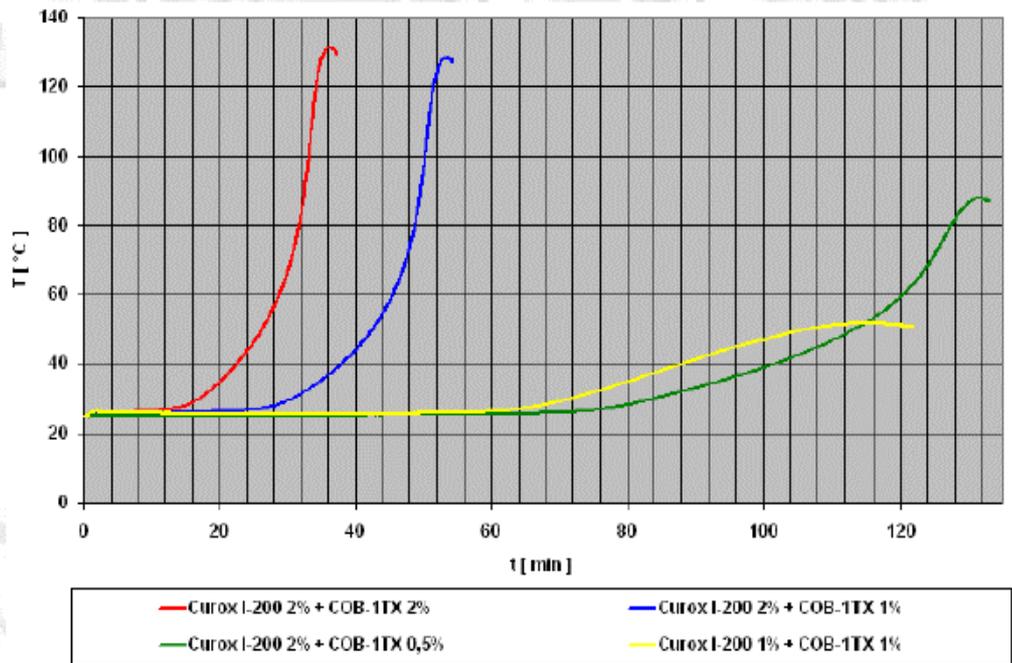
Appearance	Colourless liquid
Active oxygen	Approx 10.7 % w/w
De-sensitising agent	Aliphatic ester
Density at 20°C	Approx. 0.91 g/cm <sup>3</sup>
Viscosity at 20°C	Approx. 5 mPa.s
Miscibility	Immiscible with water and miscible with alcohols, phthalates
Critical temperature (SADT)	Approx. 50°C
Cold storage stability	Liquid to below -25°C
Kick-off temperature	Approx. 55°C
Recommended storage temperature	Below 25°C
Maintenance of activity at 25°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

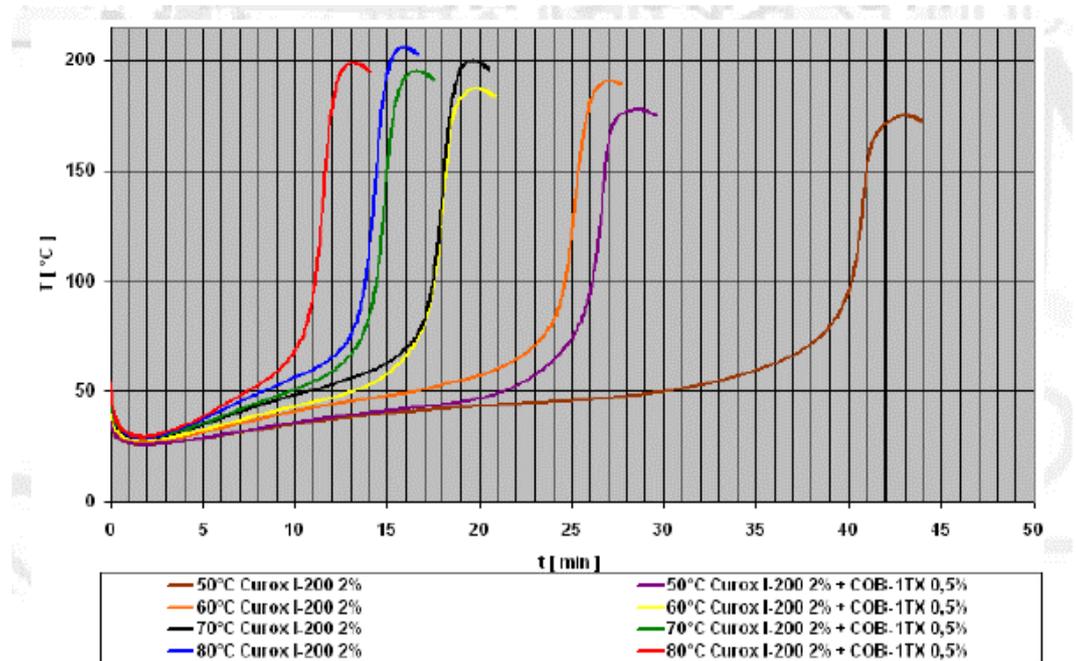
**Reactivity for the cold curing of polyester resins:**

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	100
CUROX®I-200	2	2	2	2	1.0	1.0	
Accelerator COB-1TX	2	1	0.5	0.2	1.0	0.5	
Curing data							
Gel time t <sub>gel</sub>	[min]	17.5	31.0	84.0	>90	71.5	>90
Curing time t <sub>max</sub>	[min]	36.5	53.5	131.5	-	117.0	-
Peakttemperature T <sub>max</sub>	[°C]	130	128	88	-	54	-



### Reactivity for the cold curing of polyester resins:

Curing after DIN 16945 at different temperatures with OPA resin (20g in a test tube)								
Bath temperature	50°C	60°C	70°C	80°C	70°C	80°C	80°C	80°C
Formulation (parts by weight)								
Medium reactive resin type (OPA)	100	100	100	100	100	100	100	100
Curox®I-200	2	2	2	2	2	2	2	2
Accelerator COB-1TX	-	0.5	-	0.5	-	0.5	-	0.5
Curing data								
Gel time $t_{gel}$ [min]	33.5	22.5	22.0	16.0	16.5	13.5	13.5	11.0
Cure time $t_{max}$ [min]	43.0	28.5	27.0	20.0	19.5	16.5	16.0	13.0
Peaktemperature $T_{max}$ [°C]	175	177	191	187	199	195	205	199



**POLYESTER CURING:** Curing agent for UP resins, possibly in combination with cobalt accelerator. Temperature range: 60-120°C. Usage level: 1-2% as supplied with 0.1-0.5% Accelerator COB-1TX if required. Also curing at ambient temperature is possible.

"Shelf life" (gel time of resin + peroxide) usually 4-8 hours at ambient temperature. Prolongation can be achieved only by decreasing the storage temperature. "Pot life" (gel time of resin + peroxide + accelerator) usually 1-3 hours at ambient temperature. Prolongation is possible by addition of Inhibitor TC-510.

**CURING PERFORMANCE:** Relatively long gel and cure times at ambient temperature in combination with cobalt accelerators. Above approx. 55°C ("kick-off" temperature) relatively fast curing even without cobalt. Moderate evolution of heat, little internal stress. Moderate degree of cure, post-curing at 80-120°C therefore recommendable.

**PROCESSING METHODS:** Specially developed to offer a relatively long shelf life combined with the lowest possible kick-off temperature. Thus suitable in particular for continuous impregnation of (corrugated) sheets and the applied gelcoats, as well as filament winding of pipes and tanks.

## Standard Packaging

The standard package size of Curox®I-200 is 20 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.

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Revision number: 1.0. Date: 26.10.2017. Device M: TDS.