

CUROX[®] A-300

Acetyl acetone peroxide

CAS#37187-22-7

Liquid mixture

Description

Colourless, mobile liquid, consisting of peroxides based on acetyl acetone, essentially desensitised with diacetone alcohol and glycols. This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins. Main application: curing of thin-wall moulded parts at ambient temperature in combination with cobalt accelerators.

Technical data

Appearance	Colourless liquid
Active oxygen	Approx 4.1 % w/w
De-sensitising agent	Glycols, diacetone alcohol
Density at 20°C	Approx. 1.1 g/cm ³
Viscosity at 20°C	Approx. 37 mPa.s
Miscibility	Miscible with alcohols, phthalates
Critical temperature (SADT)	>60°C
Cold storage stability	Can crystallize below 10°C
Recommended storage temperature	10 to 25°C
Maintenance of activity at 25°C as from date of production	12 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.

"Pot life" (gel time of resin + peroxide + accelerator) relatively short, but may be prolonged by adding Inhibitor TC-510.

CURING PERFORMANCE:

Strong evolution of heat, therefore short mould release times and very good mould release factors (fMR= tMR/tgel). Even at low ambient temperatures relatively rapid curing, especially in combination with Accelerator CA-12. Some fillers, pigments and stabilisers can disturb or even prevent the curing procedure. Occasionally, greenish or mottled discolouration can be observed in finished parts, post curing above 60°C may then be applied.

This product is not recommended for gel- and topcoat applications.

PROCESSING METHODS:

Suitable in particular for curing thin-wall moulded parts using various processes, such as hand lay-up, spray lay-up, vacuum and injection moulding (RTM), wet press moulding, centrifugal casting (pipes), continuous impregnating (corrugated sheets). Thus, the product is very versatile.

Standard Packaging

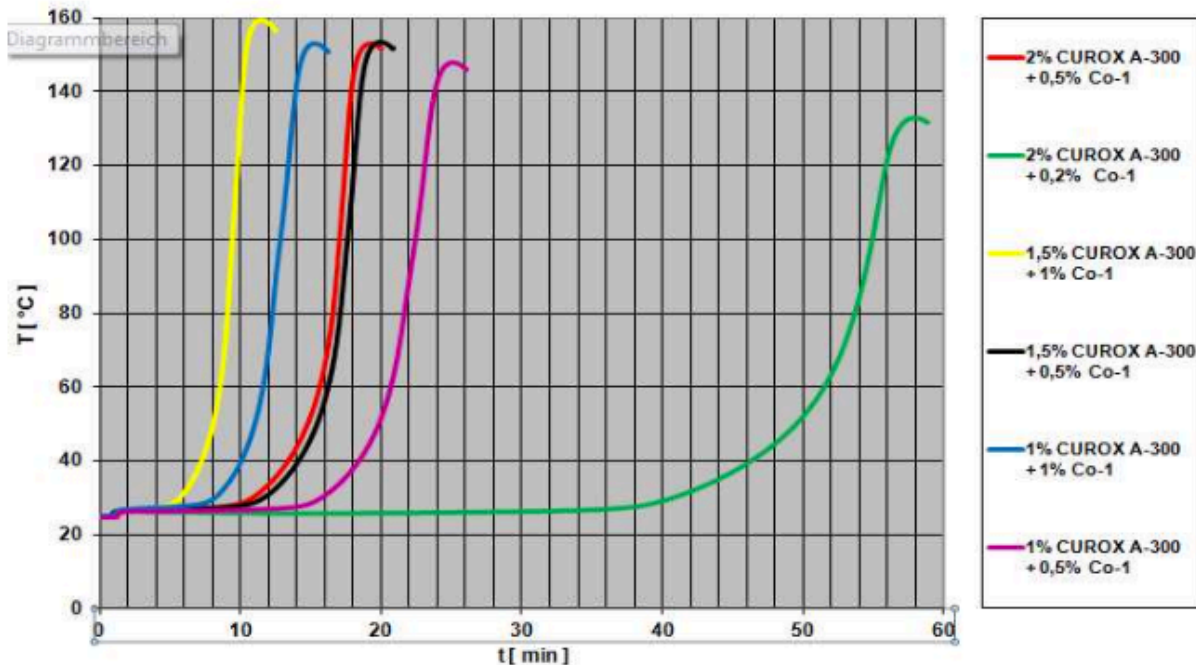
The standard package size of Curox® A-300 are 5 kg and 25 kg polyethylene bottles.

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.

Reactivity:



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® A-300	[Vol-%]	2.0	2.0	1.5	1.5	1.0
Accelerator Co 1	[Vol-%]	0.5	0.2	1.0	0.5	1.0
Curing data						
Gel time 25 -30°C t_{gel}	[min]	11.0	41.0	5.5	11.5	8.0
Gel time 25 -35°C t_{gel}	[min]	12.5	44.0	6.5	13.0	9.5
Curing time t_{max}	[min]	19.0	58.0	11.5	20.0	15.0
Peaktemperature T_{max}	[°C]	154	132	159	154	147