

CUROX[®]A-140

Acetylacetone peroxide; Tert.butyl hydroperoxide
CAS#13784-51-5; 75-91-2
Liquid mixture

Description

Colourless, mobile liquid, consisting of peroxides based on acetyl acetone, essentially de-sensitised 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 thick-wall (> 8mm) moulded parts at ambient temperature in combination with cobalt accelerators.

Technical Data

Appearance	Colourless liquid
Active oxygen	Approx 2.9 % w/w
De-sensitising agent	Glycols, diacetone alcohol
Density at 20°C	Approx. 1.0 g/cm ³
Viscosity at 20°C	Approx. 10 mPa.s
Miscibility	Miscible with alcohols, phthalates
Critical temperature (SADT)	>65°C
Cold storage stability	Can crystallize below 5°C
Recommended storage temperature	5 to 25°C
Maintenance of activity at 25°C as from date of delivery	6 months

Application

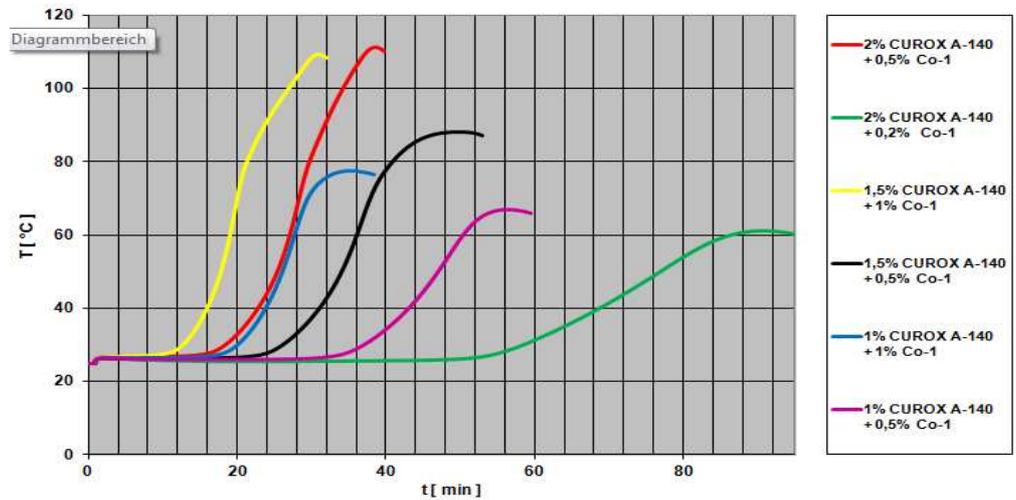
POLYESTER CURING: Curing agent for all UP resin types at ambient temperature in combination with cobalt accelerators. Standard dosage level: 1-3% as supplied, with 0.5-2% of a 1% cobalt solution.

"Pot life" (gel time of resin + peroxide + accelerator) relatively long with significantly reduced exothermal peak

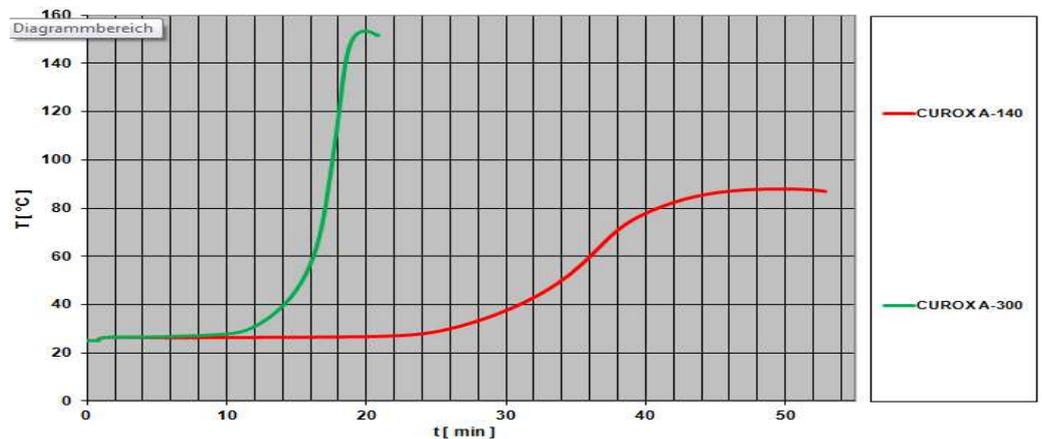
CURING PERFORMANCE: Low evolution of heat and reduced internal stress. Some fillers, pigments and stabilisers can disturb or even prevent the curing procedure. Occasionally, greenish or mottled discolouration can be observed in finished parts, post curing above 60°C may then be applied. This product is not recommended for gel- and topcoat applications.

PROCESSING METHODS: Suitable in particular for curing thick-wall moulded parts using various processes, such as hand lay-up, spray lay-up, vacuum and injection moulding (RTM) , wet press moulding, especially suitable for winding of thick-wall fittings.

Reactivity:



„Cobalt Curing“ 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-140	[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]	18.5	58.5	12.5	26.0	20.0
Gel time 25 -35°C t_{gel}	[min]	21.0	64.0	14.5	29.0	22.5
Curing time t_{max}	[min]	38.5	90.0	31.0	50.0	35.0
Peaktemperature T_{max}	[°C]	111	61	109	88	77



„Cobalt Curing“ in compliance with DIN 16945 at 25°C with OPA resin (20g in a test tube)		
Medium reactive resin type (OPA)		100
CUROX® A-140	[Vol-%]	1.5
CUROX® A-300	[Vol-%]	1.5
Accelerator Co 1	[Vol-%]	0.5
Curing data		
Gel time 25 - 30°C t_{gel}	[min]	26.0
Gel time 25 - 35°C t_{gel}	[min]	29.0
Curing time t_{max}	[min]	50.0
Peaktemperature T_{max}	[°C]	88

Standard Packaging

The standard package size of Curox® A-140 is 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.

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

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