

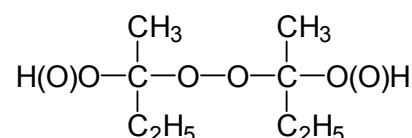
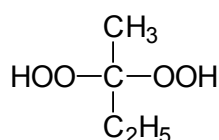
Technical Data Sheet

Polyester Curing

Ketone peroxides (Ambient temperature)

CUROX[®] M-400

Methyl ethyl ketone peroxide
CAS# 1338-23-4
Liquid mixture



Description:

Colourless, mobile liquid, consisting of peroxides based on methyl ethyl ketone, essentially desensitised with phthalate plasticiser. This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins. Main application: casting of buttons or centrifugal casting of button sheets at ambient temperature in combination with small amounts of cobalt accelerator.

Technical Data:

Appearance colourless liquid
Active oxygen ca. 9.3 – 9.99% w/w
De-sensitising agent phthalate
Density at 20°C ca. 1.07 g/cm³
Viscosity at 20°C ca. 29 mPa·s
Miscibility immiscible with water, soluble in phthalates
Critical temperature (SADT) ca. 60°C
Cold storage stability to below -25°C
Recommended storage temperature below 30°C
Maintenance of activity at 25°C min. 6 months

Application:

POLYESTER CURING: Curing agent for all UP resin types at ambient temperature in combination with cobalt accelerators. Standard dosage level: 1-2% as supplied, with 0.2 – 2% of a 1% cobalt solution.

"Shelf life" (gel time of resin + peroxide) usually only a few hours, depending on temperature and resin type. "Pot life" (gel time of resin + peroxide + accelerator) very short, even with small quantities of accelerator.

CURING PERFORMANCE: Moderate evolution of heat, therefore curing with low internal stress, relatively long mould release times. By using minimal accelerator levels, there will be only slight discolouration in the finished part.

PROCESSING METHODS: Especially developed for short gel times even with low levels of cobalt, i.e. especially for articles which should not show discolouration. Suitable for such processes as casting or centrifugal casting of UP buttons or button sheets and continuous impregnation of (corrugated) sheets.

Activity:

"Cobalt Curing" of 2 mm thick GRP laminates at 23°C						
Formulation (parts by weight)						
Highly reactive resin type (OPA)	100	100	100	100	100	100
CUROX® M-400	2	2	2	2	1	1
Accelerator C-101	2	1	0.5	0.2	1	0.5
Curing data						
Gel time (t_{gel}) at 23°C [min]	2	4	8	15	9	11
Mould release time (t_{MR}) at 23°C [min]	16	25	35	75	35	45
Mould release factor ($f_{MR} = t_{MR}/t_{gel}$)	8.0	6.3	4.4	5.0	3.9	4.1

Further information on suitable curing agents for unsaturated polyester resins is given in our application brochures on this subject.

Contact:

<http://www.degussa-initiators.com>