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MEKP- LA3 Catalyst  
(Polyester & Vinyl ester Resin)  
(Low Reactivity Catalyst)

Technical Data Sheet

**CHEMICAL NAME :** Methyl ethyl Ketone peroxide (Ambient temperature)

**PROPERTIES:** Liquid mixture

**Description:**

- ❖ Colourless, mobile liquid, consisting of peroxides based on methyl ethyl ketone, essentially desensitized with aliphatic, ester.
- ❖ This ketone peroxide is used as an initiator (radical source) in the curing of unsaturated polyester resins and vinyl ester resins.
- ❖ Main application; curing of large molded parts at ambient temperature in combination with cobalt accelerators.

Technical Data	
Property	Characteristics/ Value
Appearance	Colourless liquid
Active oxygen	Approx. 8.6 % w/w
De- sensitizing agent	Aliphatic ester
Density at 20 °C	Approx. 1,01 g/cm <sup>3</sup>
Viscosity at 20 °C	Approx, 13 mPas

Miscibility	Immiscible with water, Miscible with ester, UP/VE resins
Critical temperature (SADT)	Approx. 60°C
Cold storage stability	Liquid to below 25°C
Recommended storage temperature	Below 30°C
Storage stability (activity) as from date of delivery	6 months

**POLYESTER CURING:**

Curing agent for UP resins, at ambient temperature, in combination with cobalt accelerators. Suitable for all UP resin types and for vinyl ester resins. Standard dosage level: 1-3% as supplied, with 0.5 - 2% of a 1 % cobalt solution (or alternatively cobalt amine accelerator). "Shelf life" (gel time of resin + peroxide + accelerator) relatively long, especially, when ortho – or iso- phthalic resins are to be cured.

**CURING PERFORMANCE**

Moderate evolution of heat, therefore low internal stress. Recommended for vinyl ester (VE) resins. Relatively short mould release times, i.e. Good mould release factors ( $fMR = tMR/tgel$ ). Temperatures below 20°C and/or some special resin types retard curing considerably.

**PROCESSING METHODS:**

Particularly hand lay up; spray lay-up, centrifugal casting, filament winding, casting of resins, and surface coatings (putties, fillers, gel coats and topcoats).

**SPRAY EQUIPMENT:**

Use spray equipment in accordance with manufacturers' instructions. Ensure all safety devices are operational. Do not clear gun by spraying MEKP into the air.

Activity: Cobalt Curing after DIN 16845 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
MEKP- LA3	2	2	2	2	1	1
Accelerator C -101	2	1	0.5	0.2	1	0.5
Curing Data						
Gel time tgel (min)	10.0	18.5	43.0	>180	62.5	>180
Curing time tmax (min)	29.0	41.0	83.5	-	105	-
Peak temperature Tmax (°C)	130	125	96	-	54	-

"Cobalt Curing" after DIN 16945 at 25°C with VE resin (20g in a test tube)						
Formulation (parts by weight)						
Medium reactive resin type (VE)	100	100	100	100	100	100
MEKP LA3	2	2	2	2	1	1
Accelerator CA-12	2	1	0.5	0.2	1	0.5
Curing Data						
Gel time tgel (min)	1.5	1.5	2.5	4.5	2.5	4.0
Curing time tmax (min)	9.5	11.5	14.5	21.5	13.0	16.5
Peak temperature tmax (°C)	160	164	163	157	160	160

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