

LUPEROX® K10



METHYL ETHYL KETONE PEROXIDE

CAS NR: 1338-23-4

EINECS: 215-661-2

APPLICATIONS

Luperox® K10 is high activity Methyl Ethyl Ketone Peroxide used for the cure of unsaturated polyester resins at room temperatures in combination with a cobalt accelerator. Luperox® K10 is used for applications such as hand lay-up, spray-up etc. and thanks to its high activity is particularly suitable during the cold season. Its low viscosity makes it ideal for spray-up techniques (airless) with external mixing. Use in gel coats is possible but requires a study case by case.

SPECIFICATIONS

	Unit	Value	Method of Analysis
Physical form	-	Clear liquid	AM/I/71/A
Active oxygen	% w	9.7 – 10.0	AM/I/53/C

CHARACTERISTICS

	Unit	Value
Density at 20°C	g/ml	1,136
Refractive index at 20°C	-	1,4621
Viscosity at 20°C	mPa s	15
Flash point (setpoint)	°C	82
S.A.D.T (1)	°C	60

(1) Self- accelerating decomposition temperature.

DOSAGE

Typical concentrations for Luperox® K10 run from 1 to 3% by weight based on resin and for cobalt accelerator from 0,25% to 4% based on 1% metal content solution. Luperox® K10 is recommended for the curing of ortho- and isophthalic resins at temperatures between 15 and 50°C.

A faster reaction with shorter demold times can be obtained by the addition of promoters such as dimethyl aniline or diethyl aceto acetamide to the cobalt accelerator.

CURING PROPERTIES

The factor to be considered in selecting the optimum initiator / accelerator system are:

1. Process
2. Resin type
3. Required gel time or pot-life
4. Part thickness
5. Room temperature

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- Nature and quantity of additives
- Dosage optimization between Luperox® K10 and accelerator.

For comparison purposes, the table below shows activities of different MEKPs.

Product	Gel time	Cure time	Peak exothermic	Barcol hardness after 7 hours
Luperox® K1G	15 minutes	34 minutes	110 °C	48-50
Luperox® K12G	36 minutes	61 minutes	99 °C	47-51
Luperox® K10	12 minutes	26 minutes	124 °C	47-50

Test were carried out at 22°C in a medium activity resin following the DIN 16945 method with 2% of MEKP and 0,5% of cobalt accelerator (1% metal content solution) in a test tube of 150 x 19 mm.

STANDARD PACKAGING

25 kg drums and 4 x 5 kg.

SAFETY - HAZARD

Please consult the Safety Data Sheet before using the product.

STORAGE - HANDLING

Product can be stored minimum three months after receiving date, if kept in appropriate conditions and below its maximum storage temperature. Refer to the Safety Data Sheet for detailed storage instructions.

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