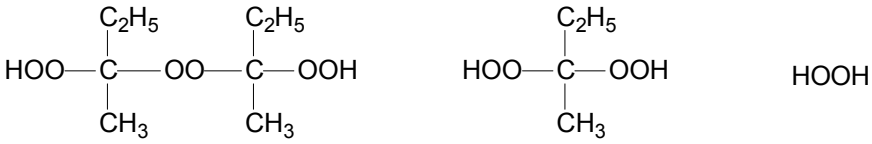
LUPEROX® K1S E



METHYL ETHYL KETONE PEROXIDE

CAS Nr.: 1338-23-4

EINECS: 215-661-2

APPLICATIONS

Luperox® K1S E is Methyl Ethyl Ketone Peroxide used for the cure of unsaturated polyester resins at room temperatures in combination with a cobalt accelerator. Luperox® K1S E is used for applications such as hand lay-up, spray up, centrifugal casting, filament winding, polyester concrete, etc. It is particularly suitable for gel coat curing. Its low viscosity makes it ideal for spray-up techniques (airless) with external mixing. Faster reaction with shorter demold times can be obtained by the addition of promoters such as dimethyl aniline.

SPECIFICATIONS

	Units	Values	Method of Analysis
Physical form	-	Clear liquid	AM/I/71/A
Active oxygen	% w	9.0 – 9.4	AM/I/53/C

CHARACTERISTICS

	Units	Values
Density at 20°C	g/ml	1,128
Viscosity at 20°C	mPa s	16
Flash point (setapoint)	°C	55
S.A.D.T (1)	°C	62

(1) Self-Accelerating Decomposition Temperature

DOSAGE

Typical concentrations for Luperox® K1S E 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® K1S E is recommended for the curing of ortho- and isophthalic resins at temperatures between 15°C and 50°C.

Replacing Luperox® K1G with Luperox® K1S E:

Dosage by weight: Dosage is strictly identical Luperox® K1S E and Luperox® K1G to obtain same curing performance.

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LUPEROX® K1S E

Dosage by volumetric pumps: Because of it slightly higher density, volumetric metering should be increased when replacing Luperox® K1G with Luperox® K1S E. **1 volume of Luperox® K1 should be replaced by 0,9 volumes of Luperox® K1S E**. The table below simplifies volume dosage conversion:

Dosage volume	
LUPEROX® K1G E	**LUPEROX® K1S E**
1	0,90
1,5	1,36
2	1,81
2,5	2,26
3	2,71

CURING PROPERTIES

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

Product	Gel time	Cure time	Peak exothermic
LUPEROX® K1S E	7 minutes	16 minutes	146°C
LUPEROX® K1G E	7 minutes	16 minutes	144°C
LUPEROX® K10 E	5 minutes	10 minutes	144°C

Tests were carried out at 25°C on 25g of medium activity resin pre-accelerated with 1% of cobalt accelerator 1% metal content solution) and with 2% of MEKP.
Luperox® K1S E is equivalent in reactivity to Luperox® K1G E.

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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