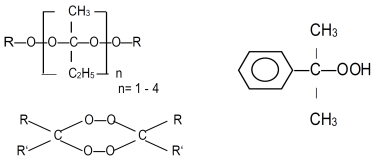
PEROXAN ME-50 LU 1 X

Ketone peroxide / Curing

Description

Mixture of Methyl Ethyl Ketone peroxide(s) and Cumene hydroperoxide
Solution in TXIB

PEROXAN ME-50 LU 1 X is used for curing of polymer concrete with high ratios resin to fillers, vacuum injection, RTM plus filament windings of tubes and tanks with bigger wall sizes. The curing reaction is performed at ambient temperatures and always in combination with Cobalt accelerators.



CAS No.:	**1338-23-4; 80-15-9**

Technical data

Appearance:	**light yellow, clear liquid**
Active oxygen assay:	**9.15%**
Density at °C:	**1.02 g/cm³**

Solubility

Insoluble in water, Soluble in phthalates

Storage

Maximum storage temperature (Ts max):	**30°C**
Minimum storage temperature (Ts min):	**0°C**
Storage stability as from date of delivery:	**6 months**

Hazardous reactions

Keep packaging tightly closed in a well ventilated place at indicated storage temperature. Keep away from reducing agents e.g. amines, acids, alkalis, heavy metal compounds (e.g. accelerators, driers, metal soaps). Never weigh out in storage room.

Oxidizing agent. Decomposes violently under the influence of heat or by contact with reducing agent. Never mix with accelerators.

Safety characteristics

Flash point:	72°C
SADT:	60°C

The SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which a self accelerating decomposition may occur.

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Application

PEROXAN ME-50 LU 1 X is very well suitable for curing of unsaturated polyester resins at ambient and slightly elevated temperatures. PEROXAN ME-50 LU 1 X has to be utilized always in combination with Cobalt accelerators. PEROXAN ME-50 LU 1 X is not suitable for hot curing applications. The system PEROXAN ME-50 LU 1 X / Cobalt accelerators does not badly influence the UV resistance properties of the final parts.
PEROXAN ME-50 LU 1 X is used for curing of polymer concrete with high ratios resin to fillers, vacuum injection, RTM plus filament windings of tubes and tanks with bigger wall sizes made by e. g. hand laminate, fibre spraying or continuous processing.

Advantage: Using of PEROXAN ME-50 LU 1 X will result in a reduced peak temperature during curing reaction compared with a standard active MEKP, e. g the PEROXAN ME-50 LX and therefore will avoid formation of cracks.
Even more reduced peak temperatures canbe achieved while utilizing PEROXAN ME-50 LU or PEROXAN ME-50 LU 2. The gel and curing times achieveable by the system PEROXAN ME-50 LU 1 X / Cobalt accelerators can be variied within a broad range by variation of the accelerator dosage.
A high degree of curing can be achieved by post curing at a temperature range from 80° C up to 100° C with a duration of 2 to 8 hours.
Ambient temperatures should not fall below 18° C when the system PEROXAN ME 50 LU 1 X / Cobalt accelerators is applied. At lower temperatures the system may remain undercured due to heavily decreased efficiency.
Humidity, certain fillers and pigments may badly influence the curing properties of the system PEROXAN ME-50 LU 1 X / Cobalt accelerators.

Depending on working conditions, the following peroxide and accelerator dosage levels are recommended:

PEROXAN ME-50 LU 1 X 1.0 to 3.0 phr
PERGAQUICK C12 X (Co accelerator 1%): 0.3 to 2.0 phr

based on unsaturated polyester resin and Styrene to be 100 phr. The dosage depends further on the required gel and demoulding times, the processing temperatures, the thickness of the laminates and the activity of the polyester resin.

Packaging

25kg container

Major decomposition products

2-Phenylisopropanol, acetophenone, Formic acid, Acetic acid, Carbon dioxide, Methane, Methylethylketon, Propionic acid, Water

Safety and handling

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PEROXAN ME-50 LU 1 X. This information should be thoroughly reviewed prior to acceptance of this product. The MSDS is available for downloading at **www.pergan.com** or through contacting Pergan directly.

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