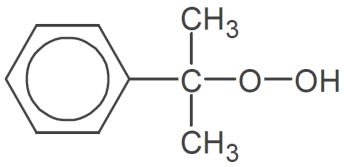
PEROXAN CU-80 L

Hydroperoxide / Curing

Description

Cumyl hydroperoxide
80%, Solution in cumene

PEROXAN CU-80 L is used for the curing of unsaturated polyester resins and vinylester resins.



Molecular weight:	**152.2**
CAS No.:	**80-15-9**

Technical data

Appearance:	**clear, colourless or light yellow liquid**
Peroxide assay:	**appx. 80%**
Active oxygen assay:	**appx. 8.41%**
Density at 20°C:	**1.04 g/cm³**

Solubility

Insoluble in water, soluble in various organic solvents

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.

Organic Peroxides are more or less stable products but will decompose under the influence of heat. To minimize a loss of quality during storage, it is important that the recommended maximum storage temperature is not exceeded. If a minimum storage temperature is given, an undesirable process such as a solidification or phase separation, is known to occur below this temperature.

Safety characteristics

Flash point:	>SADT°C
SADT:	80°C

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

Schlavenhorst 71
D-46395 Bocholt
Germany

Phone: +49 (0)2871 / 99 02-0
Fax: +49 (0)2871 / 99 02-50
www.pergan.com

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Application

PEROXAN CU-80 L is used for the curing of unsaturated polyester resins.

Without the addition of an accelerator the polymerization starts only above the activation temperature of 90°C. For the cure at lower temperature PEROXAN CU-80 L must be accelerated by cobalt or vanadium. Together with Cobalt accelerators the gel time at room temperature is very long and is therefore particularly suitable for those applications where a long production time is required, for instance in the production of large parts and in filament winding. Sufficiently fast gel an cure times are only obtained above 35°C.

Together with vanadium accelerators PEROXAN CU-80 L gives a short gel time and a fast cure at room temperature. This can be improved further by adding a special promotor like pyruvic acid. With such a system it is possible to get a fast cure of UP resins, even at low temperature. Also for resins like vinylester resin, these combinations are very suitable.

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

PEROXAN CU-80 L: 1,0 to 3,0 phr
PERGAQUICK C12 X (Cobalt, 1%): 0,5 to 3,0 phr

Packaging

25kg container
200kg drum

Major decomposition products

2-Phenylisopropanol, acetophenone, Methane,

Safety and handling

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PEROXAN CU-80 L. 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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Phone: +49 (0)2871 / 99 02-0
Fax: +49 (0)2871 / 99 02-50
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