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## RUBBER CHEMICALS -PEROXIDES-

### AKROCHEM® DCP

#### DESCRIPTION:

Akrochem DCP is an organic dialkyl peroxide chemically identified as dicumyl peroxide and is used as a cross-linking agent for synthetic and natural elastomers and polyolefins such as polyethylene and ethylene vinyl acetate. This peroxide is noted for its non-blooming characteristic and high reactivity at medium processing and curing temperatures (see half-life times below). SADT (self accelerating decomposition temperature) is 75°C and the safe processing temperature ( $t_{s2}>20$  mins.) is 130°C. Store this peroxides as close to room temperature as possible.

#### TYPICAL PROPERTIES:

<i>Grades:</i>	<i>DCP</i>	<i>DC-40C</i>	<i>DC-40C</i>	<i>DC-40K</i>	<i>DC-40K</i>
Form	granule	powder	pellet	powder	pellet
Peroxide Content, %	99	40	40	40	40
Specific Gravity (calc.)	1.05	1.61	1.61	1.61	1.61
Filler/Binder Type	-----	calcium carbonate	c.carbonate/ binder	kaolin	kaolin/ binder

#### APPLICATIONS:

Akrochem DCP peroxide is used as a catalyst for cross-linking any synthetic or natural elastomer or polyolefin that can be cured with peroxides. Due to DCP's half life, this peroxide encompasses a good compromise of scorch safety and cure rate. In addition, this cross-linker is listed in FDA CFR 21: Title "Food and Drugs" part 177.2600, Rubber Articles Intended for Repeated Use. The powdered or granular forms provide ease of handling and weighing accuracy. In silicone rubber, only vinyl-containing silicones can be cured.

<u>Half-life times</u>	<u>Akrochem TMC*</u>	<u>Akrochem DCP</u>	<u>Akrochem VCP **</u>
10 Hours (°C)	96	116	124
1 Hour (°C)	115	134	142
1 Minute (°C)	147	172	183
Recommended Cure Temp.(°C)	135- 200	160- 205	170- 210
Approx. Equivalent State-of-Cure (phr)	1.20	1.00	0.62

\* 1,1-bis(t-butylperoxy) 3,3,5-trimethylcyclohexane, \*\*  $\alpha$ ,  $\alpha'$  bis-(t-butyl peroxy) diisopropyl benzene

**Note:** This peroxide is also available in a 40% active masterbatch form, either in slabs (Akroperse®) or pellets (Akroform®). For more information see Akroform DC-40/EPR/P in the Peroxide Section.

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