AKROCHEM CORPORATION
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# AKROCHEM® VCP

## DESCRIPTION:

Akrochem VCP is an organic dialkyl peroxide chemically identified as t-butylperoxy-diisopropyl benzene and is used as a crosslinking agent for synthetic and natural elastomers and polyolefins such as polyethylene and ethylene vinyl acetate. This peroxide is noted for its low odor and high reactivity at medium-high processing and curing temperatures (see half-life times below). SADT (self accelerating decomposition temperature) is 80°C and the safe processing temperature ($t_{s2}$>20 mins.) is 135°C. Store this peroxides as close to room temperature as possible.

## TYPICAL PROPERTIES:

| ***Grade:*** | ***VCP*** | ***VC-40C*** | ***VC-40K*** |
|---|---|---|---|
| Form | flake | powder | powder |
| Peroxide Content | 96 | 40 | 40 |
| Sp.Gravity (calc.) | 1.03 | 1.62 | 1.62 |
| Filler/Binder Type | --- | calcium carbonate | Burgess KE kaolin |

## APPLICATIONS:

Akrochem VCP peroxide is used as a catalyst for crosslinking any synthetic or natural elastomer or polyolefin that can be cured with peroxides. The advantages of VCP peroxide over TMC (1,1 bis(t-butylperoxy) 3,3,5-trimethylcyclohexane) and DCP (dicumyl peroxide) are: higher crosslinking efficiency, low odor and longer scorch times. The powdered or granular forms provide ease of handling and weighing accuracy.

| Half-life times | Akrochem TMC | Akrochem DCP | Akrochem VCP |
|---|---|---|---|
| 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) | 2.00 | 1.60 | 1.00 |

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

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