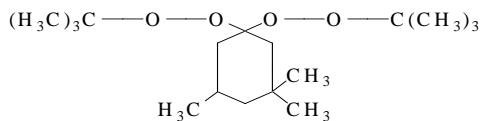


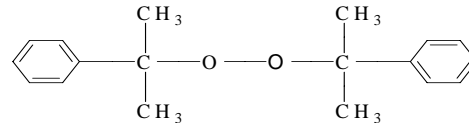
AKROCHEM® PEROXIDE COMPARISON
-Recommended Loading Levels-

Peroxides are organic materials commonly utilized as crosslinking agents for synthetic and natural elastomers and polyolefins such as polyethylene and ethylene vinyl acetate. Compounding will cure elastomers with a peroxide instead of sulfur when improved compression set, heat aging and color development is required. Because peroxides differ in structure, crosslinking is established by free radicals based on molar weight. Thus, different loadings are required in different types of polymers. Below are the structures and recommended phr loading ranges of the four most commonly used peroxides in elastomers.



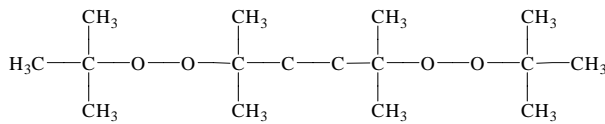
Akrochem TMC-40

CAS: 6731-36-8



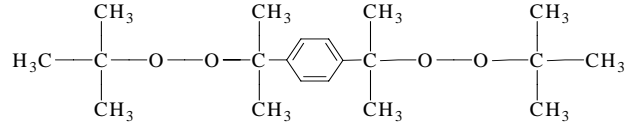
Akrochem DC-40C,K

CAS: 80-43-3



Akrochem DDPH-50

CAS: 78-63-7



Akrochem VC-40K

CAS: 25155-25-3

Parts of Peroxides / 100 Parts of Elastomer

Elastomer	TMC-40	DC-40C,K	VC-40K	DDPH-50
EP(D)M	6.8 - 11.3	6.1 - 10.1	3.8 - 6.3	5.8 - 9.7
NBR	2.6 - 4.5	2.4 - 4.1	1.5 - 2.5	2.3 - 3.9
HNBR	6.8 - 11.6	6.1 - 10.4	3.8 - 6.5	5.5 - 7.1
SBR	1.9 - 4.1	1.7 - 3.7	1.1 - 2.3	1.6 - 2.5
NR-IR	2.3 - 4.5	2.0 - 4.1	1.3 - 2.5	1.9 - 3.9
BR	1.0 - 2.1	0.9 - 1.9	0.5 - 1.2	0.8 - 1.8
CR	1.1 - 3.0	1.0 - 2.7	0.6 - 1.7	1.0 - 2.6
PE	1.5 - 7.6	1.4 - 6.8	0.8 - 4.2	1.3 - 6.4
CPE	6.8 - 10.6	6.1 - 9.5	3.8 - 5.9	5.8 - 9.0
AU	5.3 - 9.1	4.7 - 8.1	3.0 - 5.1	4.6 - 7.7
EU	1.8 - 2.4	3.2 - 6.4	2.0 - 4.0	1.5 - 2.0
Q (silicone)	--	1.0 - 2.0	0.4 - 0.8	0.4 - 0.8
TC Temp. ¹	145 °C	170 °C	175 °C	175 °C
SP Temp. ²	115 °C	130 °C	135 °C	135 °C

¹ typical crosslinking temperature - temperature at which 90% of the total crosslinks are created within 10-15 minutes

² safe processing temperature - temperature at which scorch does not occur within 20 seconds