

Rhenocure® CA

Specialty and standard chemicals

Function

Secondary accelerator for CR, EPDM and other diene rubbers for the low sulfur or sulfur-free vulcanization aiming at a fast full cure and a high degree of crosslinking

Product description

Composition:	N,N'-diphenyl thiourea
Appearance:	white to yellowish, crystalline powder
Melting point:	approx. 150 °C
Density, 20 °C:	approx. 1.3 g/cm ³
Solubility:	soluble in acetone; hardly soluble in water
Physiological properties:	see safety data sheet

Use

Mode of action:	Rhenocure CA causes a very rapid vulcanization in CR. It is also suitable as a secondary accelerator in CR compounds which contain ethylene thiourea (ETU). In EPDM, Rhenocure CA serves as a secondary accelerator. Very often Rhenocure CA minimizes the blooming tendency of other accelerators. In other diene rubbers such as NR and SBR Rhenocure CA proves to be a highly effective activator and secondary accelerator, if little or no sulfur at all is used (e.g. in thiuram vulcanization or in the vulcanization with sulfur donors such as Rhenogran CLD-80).
Processing:	Due to the strong accelerating effect, Rhenocure CA is mostly incorporated at the end of the mixing cycle (in CR compounds it is advisable to add Rhenocure CA together with ZnO). The dispersion of Rhenocure CA is generally not problematic.

Dosage: The dosage of Rhenocure CA depends on the type of rubber used as well as on the curing system (dosage recommendations in phr):

in CR:

Rhenocure CA:	1.0	0.5-3.0
ETU:	1.0	-
ZnO:	5.0	5.0
MgO:	4.0	4.0

in EPDM:

Rhenocure CA:	0.5-1.5	0.5-1.5
MBT:	0.5	-
TMTM:	1.5	-
Sulfur:	1.5	-
ZDEC:	-	1.5
ZMBT:	-	1.5
TMTD:	-	1.5

in NR or SBR:

Rhenocure CA:	0.5-1.5	0.5-1.5
TMTD:	2.5-4.0	0.2-0.5
Sulfur:	0-3.0	0.5-0.8
MBS	-	2.0 (SBR:0.6-0.8)

Application: Molded and extruded technical articles, e.g. cable coverings, foils

Packaging

20 kg cardboard box with PE bag inside on 480 kg skid

Storage stability

In original closed containers under cool and dry conditions 730 days from date of manufacturing

Handling

For additional handling information on Rhenocure CA please consult current safety data sheet.

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