

Rhenocure® L

Specialty and standard chemicals

Function

Ultra accelerator for the vulcanization of natural and synthetic rubbers

Product description

Composition:	zinc dimethyl dithiocarbamate (ZDMC)
Appearance:	white to yellowish powder
Density, 20 °C:	approx. 1.7 g/cm ³
Solubility:	insoluble in petrol (gasoline) and water, poorly soluble in toluene and acetone
Melting point:	ca. 250 °C
Physiological properties:	For further details see safety data sheet.

Use

Mode of action

Rhenocure L causes very rapid vulcanization of natural and synthetic rubbers, e.g. SBR, NBR and EPDM. The addition of thiuram and thiazole accelerators retards the start of the vulcanization and increases processing safety. Rhenocure L gives a longer scorch time and a faster total curing time than Rhenogran LDB/C. Rhenocure L receives an additional activation from basic accelerators. Rhenocure L is also used in small amounts for secondary acceleration and for the activation of mercapto or thiuram accelerators. Rhenocure L provides very good tensile and resilience properties. For improving the resistance to aging, it is recommended to add antioxidants.

According regulation XXI of the Bundesamt für Risikobewertung (BfR) the use of zinc dithiocarbamates is approved in the production of rubber goods which come into contact with food, provided the amount used does not exceed 1.2 parts by weight, calculated on the finished article.

Processing:

Rhenocure L easily disperses in the rubber. They are not decomposed, even at elevated processing temperatures, as long as no sulfur is present. However, if only very small additions of zinc-dithiocarbamates are needed, it is advisable to use a batch or mix them with fillers. Zinc oxide must be included in compounds in which zinc-dithiocarbamates are used. Stearic acid also has beneficial effects in compounds containing zinc-dithiocarbamates.

Dosage: Recommendations for dosage (in phr)

in NR:

2.0-2.5 Sulfur
+ 0.25-0.4 Rhenocure L
+ 0.05 MBTS
+ 0.08 TMTD
(in SBR: + 1.0 Rhenocure 1000 C [OTBG])

Fabric proofings in NR (in phr)

2.0-2.2 Sulfur
+ 0.6-0.8 Rhenocure L
+ 0-0.5 Rhenocure HX

Fabric proofings in SBR or NBR (in phr)

1.5-2.0 Sulfur
+ 0.8-1.2 Rhenocure L

Application: All kinds of mechanical goods, footwear, cables, surgical and hygienic articles, goods which come into contact with foodstuffs, pharmaceuticals or cosmetics, fabric proofings, dipped goods, and self-vulcanizing compounds and solutions.

Packaging

20 kg plastic bags on 1000 kg skid

Storage stability

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

Handling

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

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