

Rhenogran® CLD-80

Predispersed rubber chemicals and additives

Function

Non-staining sulfur donor for the vulcanization of natural and synthetic rubbers free of carcinogenic N-nitrosamines

Product description

Composition:	80 % caprolactam disulfide 20 % elastomer binder and dispersants
Appearance:	off-white to yellowish granules
Density, 20 °C:	approx. 1.20 g/cm ³
Physiological properties:	see safety data sheet

Use

Mode of action: Rhenogran CLD-80 is a sulfur donor which, unlike many thiurams and morpholine, separates no carcinogenic nitrosamines. Under common curing conditions, Rhenogran CLD-80 liberates free sulfur, which, unlike normal sulfur, forms mono- and di-sulfidic bridges. These are causal for the excellent heat aging resistance of vulcanizates made with Rhenogran CLD-80. The use of Rhenogran CLD-80 results in increased safety of scorch properties. When the curing temperature is reached, a quick vulcanization follows. This rapid vulcanization is of particular advantage when voluminous molded articles are produced.

Compounds with Rhenogran CLD-80 provide a wide curing plateau. Therefore, Rhenogran CLD-80 is especially suitable in all cases where high temperatures occur during the processing, e.g. salt bath vulcanization and injection molding. Reversion effects are avoided. We recommend the use of Rhenogran CLD-80 wherever a high degree of heat resistance is required.

Vulcanizates show favorable compression set properties as well as low permanent elongation values. In many cases, the amounts of conventional antioxidants can be reduced. Blooming, generally observed when using thiuram disulfides as crosslinking agents, is absent with Rhenogran CLD-80.

Processing: The thermoplastic, fully compatible elastomer binder which is combined with special dispersing agents allows quick absorption and excellent dispersion in the rubber. In this way, optimal activity of the active substance is ensured. When using soft compounds, it is recommended to add Rhenogran CLD-80 in the first mixing step.

Dosage:

[phr]	in NR, with CB	SBR, with bright fillers	NBR	IIR	low-sulfur vulcanisation
Rhenogran CLD-80	1.00-2.00	1.00-2.00	1.00-2.00	1.20-2.50	1.25-2.00
Rhenogran CBS-80	0.50-0.75	-	-	-	1.00-1.50
Rhenogran MBTS-80	-	0.30-0.50	1.00-1.50	1.00-1.50	-
Rhenogran TMTD-80	-	0.30-0.50	1.00-2.50	1.00-2.50	1.00-1.50

Applications:

Articles resistant to reversion, e.g. tire carcasses and treads; with additional thiuram accelerator for nitrile rubber seals; aging-resistant articles, based on NR, SBR, NBR, EPDM

Packaging

25 kg paper bags on 500 kg plastic skids

Storage stability

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

Handling

For additional handling information on Rhenogran CLD-80 please consult current safety data sheet

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