

Rhenogran® TP-50

Predispersed rubber chemicals and additives

Function

Non-staining special accelerator for the rapid vulcanization of diene rubbers

Product description

Composition:	50 % zinc dialkyldithiophosphate 50 % elastomer binder, dispersing agents
Appearance:	dark blue granules
Density, 20 °C :	approx. 1.25 g/cm ³
Physiological properties:	see safety data sheet

Use

Mode of action: Rhenogran TP-50 is used as a special accelerator for EPDM compounds containing accelerators of the thiazole and thiuram class as well as sulfur and zinc oxide. Rhenogran TP-50 causes a high degree of cross-linking.

Vulcanizates accelerated by Rhenogran TP-50 show no signs of blooming when following the recommendation for the max dosage. By using Rhenogran TP-50 accelerator systems can be obtained exhibiting excellent processing safety as well as a high storage stability of the accelerated raw compounds.

As an ingredient of EV systems, Rhenogran TP-50 can be used to accelerate the vulcanization of NR, IR, SBR, NBR, IIR etc. The vulcanizates are then characterized by exceptionally good resistance to heat aging.

Rhenogran TP-50 is used as a secondary accelerator in the sulfur vulcanization of EPDM and NR in combination with sulfenamides, thiazoles and thiurams. It does not form secondary amines during the vulcanization process which are known to form hazardous N-nitrosamines.

Processing: The thermoplastic, fully compatible elastomer binder with its special dispersing agents allows quick absorption and excellent dispersion in the rubber compound. In this way, optimal activity of the effective substance is assured.

Dosage: Total sulfur amount should be adjusted, typical sulfur content of Rhenogran SDT-50: ca. 10.7 %.
The usual dosage of Rhenogran TP-50 is 2-4 phr in a recommended combination with 0.6-1.9 phr Rhenogran MBT-80 and 0.3-1 phr Rhenogran TMTD-80. In compounds filled with very large amounts of fillers (carbon black, mineral fillers or processing oils) the optimal dosage of Rhenogran TP-50 may be as high as 5 phr.

Recommendation (dosage in phr):

EPDM (N-nitrosamine-free):

Rhenogran TP-50	2.0-3.4
Rhenogran ZBEC-70	1.0-2.0
Rhenogran MBT-80	0.6-1.9
Rhenogran S-80	1.2-3.2
Rhenogran Retarder E-80	0.4-0.8
Rhenogran SDT-50	1.5-3.0

NR, SBR (N-nitrosamine-free):

Rhenogran TP-50	2.0-3.4
Rhenogran MBTS-80	0.6-0.9
Rhenogran S-80	0.3-0.6
Rhenogran SDT-50	1.0-2.0

Application: Any kind of molded and extruded technical rubber articles, e.g. profiles, dock fenders, and sheets

Packaging

25 kg paper bags on 500 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 Rhenogran TP-50 please consult current safety data sheet.

Our technical advice - whether verbal, in writing or by way of trials - is given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended processes and uses. The application, use and processing of the products are beyond our control and, therefore, entirely your own responsibility. Should, in spite of this, liability be established for any damage, it will be limited to the value of the goods delivered by us and used by you. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery.



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