

Rhenogran® ZDT-50

Predispersed rubber chemicals and additives

Function

Specialty accelerators for rapid vulcanization of EPDM and other diene rubbers not containing any secondary amines which can form N-nitrosamines.

Product description

Composition:	50 % zinc dialkyldithiophosphate 50 % elastomer binder and dispersants
Appearance:	beige granules
Density, 20 °C:	approx. 1.18 g/cm ³
Physiological properties:	see safety data sheet

Use

Mode of action: Rhenogran ZDT-50 is used as secondary accelerator together with sulfenamide, thiazole, thiuram, carbamate and guanidine in the sulfur vulcanization of EPDM, synthetic diene rubbers and natural rubber. During vulcanization, it does not form any secondary amines which can be converted to carcinogenic N-nitrosamines.

Rhenogran ZDT-50 is highly soluble and disperses very well in all conventional types of rubber, especially EPDM. Accelerator systems for EPDM manufactured with Rhenogran ZDT-50 do not bloom and are characterized by rapid vulcanization. With its excellent solubility and non-staining characteristics, Rhenogran ZDT-50 is particularly suitable for colored, transparent or translucent compounds. Due to very good processing safety, the green compounds have a good shelf life.

When optimum proportions are used, accelerator systems for NR demonstrate excellent reversion and heat aging resistance. In efficient vulcanization of NR and other rubbers such as IR, SBR, NBR, and IIR, Rhenogran ZDT-50 provides vulcanizates with good heat resistance and gives a high degree of crosslinking.

Processing: The thermoplastic nature of the elastomer binder which is compatible with all standard types of rubber and the high solubility of ZDT ensure rapid absorption and excellent dispersion in the mix.

Dosage: Sulfur content of Rhenogran ZDT-50: approx. 7.9 %
As secondary accelerator: 1-4 phr + 0.5-2 phr of a primary accelerator.
In highly filled compounds (carbon black, mineral fillers, plasticizer oils), the optimum amount may be higher.

Recommended for NR in phr (nitrosamine-free):

Rhenogran S-80	0.3-2.0 phr
Rhenogran MBTS-80	0.5-2.0 phr
Rhenogran ZDT-50	1.0-4.0 phr

Recommended for EPDM in phr (nitrosamine-free):

Rhenogran S-80	1.2-2.5 phr
Rhenogran MBTS-80	1.0-2.5 phr
Rhenogran ZDT-50	2.0-4.0 phr

Application: Rhenogran ZDT-50 is used in injection-molded and extruded technical articles of all kinds, e.g. profiles, hoses, sheeting and tank linings

Packaging

20 kg paper bag 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 ZDT-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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