

## Rhenocure® ZDT/S

Specialty and standard chemicals

### Function

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

### Product description

Composition:	70 % zinc dialkyl dithiophosphate, bound to 30 % silica
Appearance:	white powder
Density, 20 °C:	approx. 1.3 g/cm <sup>3</sup>
Sulfur content:	approx. 11 %
Discoloration of vulcanizates:	none
Physiological properties:	see safety data sheet

### Use

**Mode of action:** Rhenocure ZDT/S is used together with sulfenamide, thiazole, thiuram, carbamate and guanidine as a secondary accelerator in the sulfur vulcanization of EPDM, synthetic diene rubbers, and natural rubber. It does not contain secondary amines which can be converted to carcinogenic N-nitrosamines. Rhenocure ZDT/S is highly soluble and disperses very well in all the conventional types of rubber, especially EPDM. Accelerator systems for EPDM manufactured with Rhenocure ZDT/S do not bloom and are characterized by rapid vulcanization. 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. With its excellent solubility and non-staining characteristics, Rhenocure ZDT/S is particularly suitable for colored, transparent or translucent compounds. In efficient vulcanization of NR and other rubbers such as IR, SBR, NBR, and IIR, Rhenocure ZDT/S provides vulcanizates with good heat resistance and gives a high degree of crosslinking.

**Processing:** The free-flowing powder form of Rhenocure ZDT/S makes it easy to dispense and ensures rapid dispersion in the mix.

Dosage: When Rhenocure ZDT/S is used as a secondary accelerator, the usual amount added is 1-4 phr, which can be effectively combined with 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 proportions for NR (nitrosamine-free):

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

Recommended proportions for EPDM (nitrosamine-free):

Rhenogran S-80	1.2-2.5 phr
Rhenogran MBTS-80	1.0-2.5 phr
Rhenocure ZDT/S	1.5-3.5 phr

Application: Injection-molded and extruded technical articles of all kinds, e.g. profiles, hoses, sheeting, tank linings

### Packaging

25 kg carton with PE bag inside on 600 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 ZDT/S please consult current safety data sheet.

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