

## Rhenogran® DTDM-80

Predispersed rubber chemicals and additives

### Function

Non-staining sulfur donor for the vulcanization of natural and synthetic rubbers

### Product description

Composition:	80 % dithiodimorpholine 20 % elastomer binder and dispersing agents
Appearance:	white to beige-gray granules (variations in color due to raw materials)
Density, 20 °C:	approx. 1.25 g/cm <sup>3</sup>
Physiological properties:	see safety data sheet

### Use

Mode of action:	Under normal curing conditions Rhenogran DTDM-80 liberates free sulfur which, in contrast to normal sulfur, mainly forms mono- and di-sulfidic bridges. These are responsible for excellent heat aging resistance of the vulcanizates. Rhenogran DTDM-80 causes no blooming effects which are generally observed when using thiuram disulfides as cross-linking agents. When the full curing temperature is reached, a quick vulcanization follows. Acid compounding ingredients may cause a premature decomposition of Rhenogran DTDM-80 and thus reduce the excellent scorch safety. In general, the use of Rhenogran DTDM-80 is recommended whenever favorable compression set behavior and advantageous aging behavior is required.
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 effective substance is assured.

Dosage: The following dosages have proved to be valid (in phr):

NR and SBR	with carbon black	light-colored fillers
Rhenogran DTDM-80	1.0-2.0	1.0-2.0
Sulfur	0.25-1.0	0.25-1.0
Rhenogran CBS-80	0.5-0.75	-
Rhenogran MBTS-80	-	0.3-0.5
Rhenogran TMTD-80	-	0.3-0.5
NBR and IIR	NBR	IIR
Rhenogran DTDM-80	1.0-2.0	1.2-2.0
Sulfur	0-0.5	1.0-1.75
Rhenogran CBS-80	1.5-3.0	-
Rhenogran MBTS-80	-	1.0-2.5
Rhenogran TMTD-80	0.5-2.5	1.0-2.5

For the so-called low-sulfur vulcanization

Rhenogran DTDM-80	1.25-2.0
Rhenogran CBS-80	1.0-1.5
Rhenogran TMTD-80	1.0-1.5

Application: Articles resistant to reversion based on NR, such as tire carcasses and aging-resistant articles based on SBR, NBR and EPDM

### Packaging

20 kg carton with PE bag inside on 960 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 DTDM-80 please consult current safety data sheet.

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