

Rhenocure® MPTD

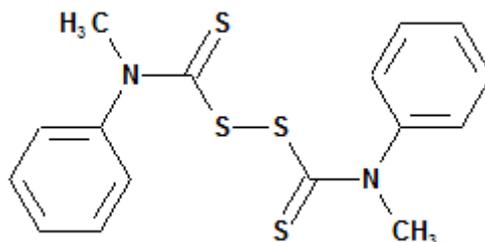
Specialty and Standard Chemicals

Function

Rhenocure® MPTD is a non discoloring ultra accelerator suitable for all conventional curing processes.

Product description

Composition: dimethyl diphenyl thiuram disulfide (MPTD)



Appearance: white to greyish powder
Density at 20 °C: approximately 1.38 g/cm³

Property	Nominal value	Unit	Test method
Initial melting point	≥ 180.0	°C	ASTM D 1519 A
Final melting point	≤ 205.0	°C	ASTM D 1519 A
Assay	≥ 96.5	%	2086/154/050/54
Ash content	≤ 0.30	%	ASTM D 4574
Volatile matter	≤ 0.50	%	ASTM D 4571 (15 - 23)
Sieve residue (0.063 mm)	≤ 0.50	%	ASTM D 4572

Use

Application: Rhenocure® MPTD could be an alternative to Rhenocure® TMTD/C. The two accelerators can be used in combination to avoid blooming when the same dosage of either used alone would cause a bloom.

Rhenocure® MPTD is a non discoloring ultra accelerator suitable for all conventional curing processes (press, steam, hot air). It can be used in NR, IR, BR, SBR, NBR, CR and EPDM.

Rhenocure® MPTD can be used alone or in combination with other accelerators for applications such as mechanical goods, hose, cable, seals, tires, conveyor belts, transparent goods, proofed textiles, latex goods, and ebonite.

As a secondary accelerator, it can be used to activate thiazoles and sulfenamides.

Processing: Rhenocure® MPTD is easy to disperse in rubber compounds. There is no risk of decomposition during mixing in the absence of sulfur. Rhenocure® MPTD causes no sensitization of latex compounds. The presence of zinc oxide is essential for the correct functioning of Rhenocure® MPTD. In most applications stearic acid is needed as well. Rhenocure® MPTD gives longer scorch times than Rhenocure® TMTD/C.

Dosage: Typical levels of addition based on 100 parts by weight of elastomer are:

for heat resistant rubber goods in general (NR,SBR,NBR)

2.5 - 3.5	Rhenocure® MPTD
0.5 - 2.0	Vulkacit® DM or Vulkacit® CZ or Rhenogran® MBS
0 - 0.3	sulfur

for injection (NBR)

2.2	Rhenocure® MPTD
2.0	Vulkacit® NZ or Rhenogran® MBS
1.0	Vulkalent® E/C
0.6	sulfur

for extrusion compounds (EPDM)

0.5 - 0.8	Vulkacit® NZ
0.5 - 0.8	Rhenocure® MPTD
0.5 - 0.8	Rhenocure® TMTD/C
0.5 - 1.5	sulfur

Vulcanizate Properties: Vulcanizates produced with Rhenocure® MPTD as the main accelerator and with a low level of sulfur exhibit good resistance to ageing and compression set. Mechanical properties in this case are slightly inferior to articles produced using a normal level of sulfur. Rhenocure® MPTD has a tendency to bloom to the surface when a minimum dosage is exceeded in the compound. This minimum dosage or threshold level varies considerably according to the polymer and the other ingredients in the recipe.

Rhenocure® MPTD is suitable for use in light and transparent goods. It does not cause discoloration even when exposed to sunlight. On its own without free sulfur, Rhenocure® MPTD does not discolor copper, silver or other metals by contact staining. Rhenocure® MPTD imparts a slight characteristic odor which is noticeable in freshly cured products.

Packaging

20 kg paper bag on 500 kg skid.

Storage stability

In original closed containers under cool (approximately 25 °C) and dry conditions 730 days from date of production.

Handling

For additional handling information on Rhenocure® MPTD please consult current safety data sheet.

These raw material properties are typical and, unless specifically indicated otherwise, are not to be considered as delivery specification.

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