

Rhenocure® ZDBC

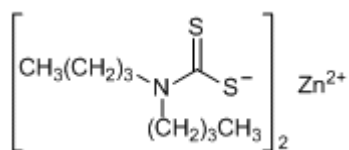
Specialty and Standard Chemicals

Function

Rhenocure® ZDBC is an ultra accelerator suitable for all curing processes.

Product description

Composition: zinc dibutyldithiocarbamate (ZDBC)



Appearance: white to yellowish powder

Density: approximately 1.48 g/cm³

<u>Property</u>	<u>Nominal value</u>	<u>Unit</u>	<u>Test method</u>
Initial melting point	≥ 104.0	°C	ASTM D 1519 A
Final melting point	≤ 112.0	°C	ASTM D 1519 A
Assay	≥ 98.0	%	RUC 500
Volatile matter	≤ 0.30	%	ASTM D 4571 (15 - 23)
Sieve residue (0.063 mm)	≤ 0.30	%	ASTM D 4572

Use

- Application:** Rhenocure® ZDBC is an ultra accelerator suitable for all curing processes (press, steam, hot air, LCM, CV). It can be employed as primary or secondary accelerator in NR, SBR, BR, NBR, IIR and EPDM, including solutions and latices.
- Rhenocure® ZDBC is most commonly employed as a secondary or booster accelerator for thiazole and sulfenamide cure systems where a high cure speed is demanded. It is used in a wide range of applications particularly in extruded goods. Rhenocure® ZDBC is also widely used in latex products including threads and dipped goods.
- Processing:** Rhenocure® ZDBC is easily dispersed in rubber compounds. It does not decompose even at high temperature unless sulfur is present. Rhenocure® ZDBC does shorten the scorch times of compounds to which it is added. Its compounds exhibit a narrow vulcanization plateau and are subject to reversion if vulcanization is at high temperature.
- Dosage:** Typical levels of addition based on 100 parts by weight of elastomer are:
- NR bottle rings, preserving-jar rings, wine and beer hose
- | | | |
|--|------------|-------------------|
| | 2.0 - 2.4 | sulfur |
| | 0.25 - 0.4 | Rhenocure® ZDBC |
| | 0.05 | Vulkacit® DM |
| | 0.08 | Rhenocure® TMTD/C |
- NR as secondary accelerator
- | | | |
|--|------------|---|
| | 2.0 - 2.5 | sulfur |
| | 0.05 - 0.3 | Rhenocure® ZDBC |
| | 0.7 - 1.3 | Vulkacit® Merkaptio or sulfenamides or Vulkacit® DM |
- SBR, NBR
- | | | |
|--|------------|---|
| | 2.0 - 3.0 | sulfur |
| | 0.05 - 0.3 | Rhenocure® ZDBC |
| | 0.7 - 1.5 | Vulkacit® Merkaptio or Vulkacit® DM or sulfenamides |
- EPDM
- | | | |
|--|-----------|---------------------|
| | 1.5 | sulfur |
| | 0.5 - 1.5 | Vulkacit® Merkaptio |
| | 0.5 - 1.5 | Rhenocure® TMTD/C |
| | 0.5 - 2.0 | Rhenocure® ZDBC |
- Vulcanizate Properties:** Rhenocure® ZDBC gives high tensile strength and resilience values when compounds are properly cured. Rhenocure® ZDBC has a beneficial effect on rubber to metal bonding. Rhenocure® ZDBC when dosed above its solubility limit in the rubber leads to surface blooming. Rhenocure® ZDBC does not affect the color of compounds nor does it cause a sensitivity to discolor when exposed to light.

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® ZDBC 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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