

## Rhenocure® ZBOP/S

Specialty and standard chemicals

### Function

Non-staining specialty accelerator for rapid vulcanization of EPDM and other diene rubbers for N-nitrosamine-free curing

### Product description

Composition:	75 % zinc dialkyl dithiophosphate, bound to 25 % high-activity silica
Appearance:	white powder
Density, 20 °C:	approx. 1.2 g/cm <sup>3</sup>
Sulfur content:	approx. 13 %
Discoloration of vulcanizates:	none
Physiological properties:	see safety data sheet

### Use

**Mode of action:** Rhenocure ZBOP/S is used together with sulfenamide, thiazole, thiuram, carbamate and guanidines as a secondary accelerator in the sulfur vulcanization of EPDM and other synthetic diene rubbers as well as natural rubber. It does not contain any secondary amines which can be converted to N-nitrosamines. Rhenocure ZBOP/S is highly soluble and disperses very well in all conventional types of rubber, especially EPDM. Accelerator systems for EPDM manufactured with Rhenocure ZBOP/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 ZBOP/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 ZBOP/S provides vulcanizates with good heat resistance and gives a high degree of crosslinking.

**Processing:** The free-flowing powder is easy to disperse in the mix at the end of the first or during the second mixing cycle.

Dosage: As secondary accelerator usually 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 ZBOP/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 ZBOP/S	1.5-3.5 phr

Application: Rhenocure ZBOP/S is used in injection-molded and extruded technical articles of all kinds including profiles, hoses, sheeting and tank linings

### Packaging

25 kg cartons 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 ZBOP/S please consult current safety data sheet.

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LANXESS Deutschland GmbH  
Business Unit Rhein Chemie  
Kennedyplatz 1  
D-50569 Cologne, Germany  
<http://rch.lanxess.com>