

## Rhenogran<sup>®</sup> ZAT-70

## Predispersed rubber chemicals and additives

<b>Function</b>	Special accelerator for the vulcanization of EPDM and other diene rubbers	
<b>Product description</b>	Composition:	70 % zinc amine dithiophosphate 30 % elastomer binder and dispersing agent
	Appearance:	grey granules
	Density, 20 °C (RC method 33 F: ELA test):	approx. 1.15 g/cm <sup>3</sup>
	Sulphur content (RC method C 50 A):	approx. 13.5 %
	Discolouration of vulcanizates:	none
	Physiological properties:	see safety data sheet

### Use

**Mode of action:** In combination with sulphur and secondary accelerators of the thiazole and thiuram class, Rhenogran ZAT-70 provides a rapid vulcanization of EPDM of the EN type. In comparison with Rhenogran TP-50 and even with Rhenogran ADT-50, higher curing rates can be achieved with Rhenogran ZAT-70. EPDM-vulcanizates with Rhenogran ZAT-70 show good moduli, favourable compression set values and a high degree of crosslinking. Rhenogran ZAT-70 forms no carcinogenic nitrosamines within the meaning of TRGS 552. Rhenogran ZAT-70 is also suitable for the efficient vulcanization of NR, SBR, IR, NBR and IIR. Generally, blooming does not occur. The resistance to hot air of vulcanizates is better than with other thiophosphate accelerators. In this respect Rhenogran ZAT-70 is only surpassed by Rhenogran CUT-50.

**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.

Due to the coarse-grain nature of the raw material we recommend to adjust mixing temperature and time during the production of the compound accordingly (>100°C). If a lower mixing temperature is required Rhenogran ZADT-50 is the material of choice.

Dosage: The usual dosage of Rhenogran ZAT-70 is between 2 phr and 3 phr. Sufficiently high curing rates, avoiding blooming, are achieved when the following curing systems are used.

in EPDM:

Rhenogran® S-80	1.0 - 3.0 phr
Rhenogran MBT-80	0.8 - 2.0 phr
Rhenogran ZBEC-70	1.0 - 2.0 phr
Rhenogran ZAT-70	1.5 - 3.0 phr
Rhenogran CLD-80	0.6 - 1.5 phr

in NR, SBR and NBR:

Rhenogran S-80	0.25 - 0.6 phr
Rhenogran MBT-80	0.6 - 1.2 phr
Rhenogran TMTD-80	0.4 - 1.0 phr
Rhenogran ZAT-70	2.0 - 3.5 phr
Rhenogran CLD-80	0.5 - 1.0 phr

Application: Technical moulded and extruded articles such as hoses, fenders, foils, etc.

---

<b>Packing</b>	15 kg carton with PE inlet, pallet 720 kg
----------------	---

---

<b>Storage stability</b>	In original closed containers under cool and dry conditions max.24 months.
--------------------------	--

---

<b>Handling</b>	Consult material safety data sheet (MSDS) for additional handling information on Rhenogran ZAT-70.
-----------------	--

---

**With respect to production sites in all world regions technical data sheets may vary in details among regions. For regional versions would you please contact your local sales representative.**

® = registered trade mark

**Version: 2/18. Jan 2005**

---

Our technical advice - whether verbal, in writing or by way of trials - is given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the

products supplied by us as to their suitability for the intended processes and uses. The application, use and processing of the products are beyond our control and, therefore, entirely your own responsibility. Should, in spite of this,

liability be established for any damage, it will be limited to the value of the goods delivered by us and used by you. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery.

---

**Rhein Chemie Rheinau GmbH**  
Duesseldorfer Strasse 23-27  
68219 Mannheim, Germany  
Tel.: +49-621-8907-0  
Fax: +49-621-8907-675  
E-Mail: [rubber.info@rheinchemie.com](mailto:rubber.info@rheinchemie.com)  
[www.rheinchemie.com](http://www.rheinchemie.com)

A company of the  
**LANXESS**  
Group

