

Rhenocure® 1000 C

Specialty and standard chemicals

Function

Accelerator for vulcanization of natural and synthetic rubber; catalyst of reaction between hindered polyisocyanates and amines for PUR coating and joint-sealing materials

Product description

Composition:	o-tolyl biguanidine (OTBG), coated with mineral oil
Appearance:	white powder
Density, 20 °C:	approx. 1.2 g/cm ³
Melting point:	min. 139 °C
OTBG content:	min. 95 %
Ash content:	max. 0.5 %
Discoloration of vulcanizates:	slight discoloration on exposure to light
Physiological properties:	see safety data sheet

Use

Mode of action: Rhenocure 1000 C is a vulcanization accelerator for all rubbers with very slow scorch rates and relatively slow cure rates. If Rhenocure 1000 C is used as the sole accelerator, addition of an effective anti-oxidant is advisable. In conjunction with mercapto, thiuram and dithiocarbamate accelerators, Rhenocure 1000 C acts as a secondary accelerator with synergistic effects. The degree of crosslinking and rate of vulcanisation are increased, resulting in vulcanisates with good mechanical properties and good resistance to ageing and reversion. Rhenocure 1000 C is not very effective in IIR and EPDM.

Processing: Under normal conditions without use of activators, curing of coating and sealing materials produced from hindered isocyanates and diamines takes several hours. Addition of Rhenocure 1000 C shortens the reaction time as a function of the amount used. Addition of 1-2 parts by weight of Rhenocure 1000 C to 100 parts by weight of premixed isocyanate/amine results in a pot life of ca. 30 minutes and a drying time of approximately 3 hours.

The addition of Rhenocure 1000 C allows the isocyanate/amine reaction to take place even at low temperatures (down to 0 °C). 1 part by weight of Rhenocure 1000 C should ideally be dissolved in 3 parts by weight of catalyst (amine, e.g. Laromin C 260) at approx. 40-60 °C. Rhenocure 1000 C should always be measured out with the catalyst, as adding it directly to the isocyanate may give rise to adverse effects.

Dosage: primary acceleration:
1-1.5 phr Rhenocure 1000 C
2.75-4 phr Rhenogran S-80

secondary acceleration:
0.1-0.5 phr Rhenocure 1000 C;
0.7-1.2 phr Rhenogran MBT-80
1.5-3 phr Rhenogran S-80

or:
1.0-2.0 phr Rhenocure 1000 C
0.25 phr Rhenogran TMTD 80
2-2.4 phr Rhenogran S-80

Application: technical rubber articles of all kinds, patching compounds, eraser rubber

Packaging

20 kg cardboard boxes on 400 kg skid

Storage stability

In original sealed containers under cool and dry conditions 730 days from date of production

Handling

For additional handling information on Rhenocure 1000 C please consult material safety data sheet.

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.



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