

Rhenocure® CRV/LG

Specialty and standard chemicals

Function

Accelerator for curing of chloroprene rubber without thiourea

Product description

Composition:	3-methyl-thiazolidine-thione-2
Appearance:	off-white to beige-brownish pellets
Melting point:	> 64 °C
Density, 20 °C:	approx. 1.39 g/cm ³
Ash content:	max. 0.5 %
Solubility:	slightly soluble in acetone, soluble in toluene, insoluble in benzene and water
Physiological properties:	see safety data sheet

Use

Mode of action: Together with metal oxides, e.g. zinc oxide (ZnO), magnesium oxide (MgO), or lead oxides (Pb₃O₄, PbO), Rhenocure CRV/LG produces a high degree of crosslinking in a short period of time during vulcanization of CR. Although it is not necessary to add sulfur, the addition of sulfur slightly improves the degree of crosslinking. Rhenocure CRV/LG disperses perfectly in compounds based on polychloroprene (CR). Unlike ETU which is possible harmful to unborn children, Rhenocure CRV/LG is not classified as toxic.

Processing: Rhenocure CRV/LG is a powerful accelerator. Therefore, it is recommended to incorporate it together with ZnO at the end of the mixing process. As a result of its relatively low melting point, the material usually melts down and disperses homogeneously. Particularly in compounds with a high rubber content, a high viscosity or in mixes containing large amounts of active carbon black, Rhenocure CRV/LG should be incorporated into the otherwise finished compound while it is being preheated for conversion. The scorch time of compounds containing Rhenocure CRV/LG is depending on the type of filler used. Scorch can be delayed by increasing the amount of MgO used or by adding bases which can be activated with thiurams or dithiocarbamates. To adjust curing characteristics, the addition of Rhenogran HPCA-50 (1-4 phr) is recommended. The vulcanizates have good stress/strain values, good aging resistance and favorable compression characteristics.

Dosage:

In CR (dosage in phr):

a) System with low MgO content for good aging characteristics:

0.5-2.0 Rhenocure CRV/LG
+ 1-3 Rhenogran HPCA-50
+ 0.5-2.0 MgO
+ 3-5 ZnO or 10-20 phr PbO

b) Standard vulcanization system without thiourea:

0.5-2.0 Rhenocure CRV/LG
+ 3-4 MgO
+ 3-5 ZnO or 10-20 phr PbO (normal proportions)

In rubber compounds with a low rubber content or in compounds with bright or colored fillers larger amounts of all additives are recommended. For best mechanical characteristics sulfur (0.2-1.0 phr) or Rhenogran Triazine TM-70/AEMD may be added (0.3-0.6 phr).

Applications:

Injection-molded and extruded technical articles, hoses, seals, roller coverings, cable sheathing and insulation, raw edge V-belts and rubber boots, windscreen wipers based on CR

Packaging

25 kg plastic bags on 500 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 CRV/LG please refer to current 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>