Technical Data Sheet

Vulkanol®
85

Processing Promoters

Function

Vulkanol® 85 is a good low temperature plasticizer, which offers the best resistance to volatilization at high temperature.

Product description

Composition: ether thioether

Appearance: nearly colorless to yellow liquid

Property	Nominal value	Unit	Test method
Refractive index (at 20 °C)	1.4705 ± 0.0025	---	DIN 51 423
Density (at 20 °C)	1.045 ± 0.025	g/cm³	DIN 51 757 (Method 4)
Viscosity (at 20 °C)	60 ± 20	mPa.s	DIN 53 019

Use

Mode of action: Vulkanol® 85 is a good low temperature plasticizer. It offers the best resistance to volatilization at high temperature (up to 125 °C) of all the recommended low temperature plasticizers available for synthetic rubbers. It is mainly used in applications subjected to a wide range of ambient temperatures such as automotive seals and hose, and hydraulic hose. It is particularly useful in those rubbers which alone have poor low temperature flexibility such as nitrile rubber and chloroprene rubber and which are often required to function at high temperature.

Processing: Vulkanol® 85 is readily mixed into rubber compounds. It is easily compatible up to the levels shown below. In sulfur cures Vulkanol® 85 has no influence on vulcanization characteristics. Vulkanol® 85 can disturb peroxide cure systems and care should be exercised in compounding in peroxide cured recipes.

Vulcanizate Properties: Vulkanol® 85 is a proper plasticizer which reduces hardness and modulus values while increasing ultimate elongation of rubber vulcanizates. In a typical sulfur cured nitrile rubber vulcanizate with a medium acrylonitrile content, the addition of 20 phr of Vulkanol® 85 reduces the brittleness point from about -23 °C to -36 °C. Vulkanol® 85 improves the resilience of rubber vulcanizates and, in contrast to other plasticizers which offer low temperature flexibility, maintains a high proportion of the rubber properties after extended periods at temperatures up to 125 °C. Vulkanol® 85 has practically no effect on compression set at high temperature and reduces compression set at ambient and lower temperatures. Addition of Vulkanol® 85 to white compounds tends to raise the electrical conductivity of vulcanizates.

Dosage: Typical levels of Vulkanol® 85 addition based on 100 parts by weight of elastomer are:

NBR (e.g. Perbunan®, Krynac®)	30 phr
CR (e.g. Baypren®)	20 phr *)
NR	10 phr
SBR (e.g. Buna® SE, Buna® VSL)	10 phr
IIR	10 phr

*) Under certain conditions (very high elongation of the vulcanizate, very high temperature) exudation may occur.

Packaging

60 kg metal hobbock on 480 kg skid or 1000 kg IBC.

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 Vulkanol® 85 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.

LANXESS Deutschland GmbH
BU Rhein Chemie
Kennedyplatz 1
50569 Cologne, Germany
Phone: +49 (0)221 8885-0
E-Mail: rubber.additives@lanxess.com
http://rch.lanxess.com