

Vulkanol® 90

Plasticizers

Function

Plasticizer specially designed to improve the low temperature flexibility of NBR and CR vulcanizates.

Product description

Composition:	di-2-ethylhexyl-thio-di-glycolate
Appearance:	clear, brownish liquid
Density, 20 °C:	0.97-0.99 g/m ³
Viscosity, 20 °C:	16-20 mPas
Flash point:	approx. 200 °C
Solubility:	miscible with benzine, toluene, ethanol and acetone
Discolouration:	none
Physiological properties:	see safety data sheet

Use

- Mode of action:** Vulkanol® 90 gives the vulcanizates particularly good low-temperature flexibility and, at the same time, comparably good heat stability. As a primary plasticizer, Vulkanol® 90 has excellent compatibility with all polymers, especially synthetic rubbers like NBR and CR. In addition, to exerting a plasticizing effect this product greatly increases the rebound resilience of the vulcanizates; it may therefore be termed an elasticator also. Vulkanol® 90 has little influence on the tendency of rubber goods to swell.
- Processing:** According to the experience gained so far, Vulkanol® 90 is freely compatible with NBR and CR, and also with NR, SBR, and SBR/BR blends, as well as with CSM, CM etc. It can be incorporated on the mixing mill or in the internal mixer in the normal way. Vulkanol® 90 increases the building tack of the compound. Vulkanol® 90 shortens both the scorch time and the cure time.
- Vulcanizate Properties:** The effects of plasticizers of various types on the crystallization tendency of CR are of considerable interest. Aromatic oils, especially those of high viscosity, retard the crystallization of CR appreciably. Naphthenic oils retard it slightly. Plasticizers of the ester type like Vulkanol® 90, however, accelerate the crystallization of CR.
The order of the effects of various plasticizer types on the glass transition temperatures, temperatures at maximum damping and brittleness temperatures of CR vulcanizates is quite different. Vulkanol® 90 is a favourable plasticizer here, whereas highly aromatic oils of high viscosity tend to cause slight impairment.
- Dosage:** 5 to 40 parts by weight.
- Application:** Technical rubber goods based on synthetic or natural rubber, e.g. hoses, seals, buffers, elastic automotive components and similar technical goods, roller covers, and conveyor belting.

Packing

950 kg IBC

Storage stability

In original closed containers under cool and dry conditions 365 days from date of production.

Handling

For additional handling information on Vulkanol® 90 please consult safety data sheet.

These raw material properties are typical and, unless specifically indicated otherwise, are not to be considered as delivery specification.

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