

Rhenogran® P91-40/NR

Predispersed rubber chemicals and additives

Function

Predispersed aramid short fiber pulp for re-inforcing natural, synthetic and thermoplastic rubber compounds.

Product description

Composition:	40 % aramid chopped fiber pulp (type Twaron), 60 % elastomer binder (NR) and additives
Appearance:	yellowish flakes
Density, 20°C:	approx. 1.07 g/cm ³
Physiological properties:	see safety data sheet

Use

Mode of action: Rhenogran P91-40/NR is made of aramid fiber pulp, pre-dispersed in a polymeric binder. Rhenogran P91-40/NR is used as a high-grade reinforcing material for sulfur and peroxide cured rubber compounds as well as in thermoplastic rubbers, preferably based on NR. Depending on the amount added, Rhenogran P91-40/NR enhances important technical rubber properties, e.g. the dimensional stability and green strength of the uncured compound. Various physical properties of the vulcanized rubber compound are improved significantly, such as elasticity modulus, modulus at low strain, compression resistance, flexural strength, hardness, abrasion, tear resistance, penetration resistance, shrinkage and creep resistance. The orientation of the fibers has to be considered. The vulcanizing rate is usually not affected.

To get maximum benefit from the aramid pulp, it is important to ensure that the highly fibrillated pulp is evenly distributed and dispersed in the rubber compound. This is usually impossible to achieve with pure aramid pulp. The pulp forms clusters and does not disperse completely.

Processing: Owing to the composition of its binder and the process in which it is prepared, Rhenogran P91-40/NR is easy to incorporate into compounds and disperses well, hence making it possible to benefit from the improvements to be obtained by using aramid chopped fiber pulp in industrial practice. Rhenogran P91-40/NR is usually added to the compound in the internal mixer along with the fillers. The orientation of the fibers must be taken into account.

Dosage: Usually 2-20 phr
Even in the predispersed form, complete isolation of the fibers is impossible to achieve because of the extremely high branching and entanglement of the fiber pulps used. Complete dispersion of the pulp without residues and its effectiveness in the compound are largely dependent on the mixing method, the mixing time, the mixers used, the compound type and other processing steps.

Application: Molded and extruded articles, hose, V-belts, seals, conveyor belting, rollers, tires, etc. based on NR, SBR. Rhenogran P91-40/NR may also be used in other elastomers.

Packaging

12,5 kg carton with PE bag inside on 375 kg skid

Storage stability

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

Handling

For additional handling information on Rhenogran P91-40/NR please consult current safety data sheet.

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