KETTLITZ-Silanogran M

- technical leaflet -

Mercapto silane for sulfur cured rubber compounds which are containing silica, clays or metal hydroxides as filler. It is suitable for all elastomers and recommended to use if an improvement of technical results, such as tear strength, modulus, compression set or abrasion is required.

Silanogran M has especially a positive effect on hot tear resistance. Excellent results were obtained in NBR and NBR/PVC compounds.

Silanogran M is normally more effective than Silanogran SI-69/GR, but has sometimes an activation effect on the t5-values.

In case of the different Silanogran types the formerly liquid silane was converted into granules by using a carrier together with plasticizers and special waxes to protect the silane from moisture during storage. The granules grant additional the following benefits:

- easy and safe handling
- exact weighing and dosage
- faster and better incorporation and dispersion in rubber compounds

Due to these advantages of in most cases it is possible to change from liquid material to granules at a ratio of 1 : 1.8 (theoretical 1 : 2; at a content of 50 % active material).

It is very important to apply the silanes at the right time of the mixing cycle. The silanes should be added together with rubber and filler **before** other rubber chemicals are applied. Stearic acid or zinc oxide should never be incorporated before.

After opening the card boxes the storage stability of the products will be limited.
For that reason it is recommended to close the aluminium coated PE bag (innerliner) after every use.

Properties:

Chemical Characteristics		50 % 3-mercaptopropyl-triemethoxy-silane
Appearance		light grey to grey granules (diameter 6–8 mm), free flowing
Active Substance	(%)	52 ± 3
Density at 20 °C	(g/cm^3)	approx. 1.35
Bulk Density	(g/ml)	ca. 0.6
Ash Content	(%)	60 ± 2
Physiol. Behavior		see safety data sheet
Storage Stability		1 year under cool and dry storage conditions
Packing		hermetically sealed PE bags of low melting PE foil (60–85 °C) of 1 kg each in cartons of 15 kg each.