Si 69®

Bis(triethoxysilylpropyl)tetrasulfide

**Characteristic physico-chemical data**

<table>
<thead>
<tr>
<th>Properties and test methods</th>
<th>Value</th>
<th>Unit</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur content</td>
<td>22.5</td>
<td>%</td>
<td>Evonik method</td>
</tr>
<tr>
<td>By-products, GC</td>
<td>≤ 3.5</td>
<td>%</td>
<td>ASTM D 6843</td>
</tr>
<tr>
<td>Average sulfur chain length, HPLC</td>
<td>3.70</td>
<td></td>
<td>ASTM D 6844</td>
</tr>
<tr>
<td>Average molecular weight</td>
<td>532</td>
<td>g/mol</td>
<td>calculated</td>
</tr>
<tr>
<td>Density</td>
<td>1.10</td>
<td>g/cm³</td>
<td>DIN 51757</td>
</tr>
<tr>
<td>Appearance</td>
<td>yellowish liquid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Registration**

Si 69® is a bifunctional, sulfur-containing organosilane for rubber applications in combination with white fillers containing silanol groups.

![Chemical structure of Si 69®](image)

**Applications and properties**

Si 69® reacts with silanol groups of white fillers during mixing and with the polymer during vulcanization under formation of covalent chemical bonds. This imparts greater tensile strength, higher moduli, reduced compression set, increased abrasion resistance and optimized dynamic properties. Si 69® is used in almost all fields of the rubber industry where silanol group-containing white fillers are used and optimum technical properties are required.

**Application fields are:**

- Low rolling resistance tires
- Mechanical rubber goods
- Shoe soles

The product is also available as a dry blend (1:1) with carbon black, named X 50-S®.
Packaging and storage

Si 69® - min. 12 months

The storage stability only applies to material stored under appropriate conditions (original unopened packaging, stored dry and frost-free and protected from direct sunlight).

Aqueous acids and bases accelerate the transformation of organosilanes to polymer siloxanes. Therefore, organosilanes should be stored in a dry place, away from acids and bases.

The quality of this product can also be influenced by moisture (humidity). During handling and storage, please prevent humidity from entering the container. Keep container tightly closed during storage and close it immediately after use.

Forms of supply:

- 1.000 kg IBC (PE)
- 200 kg PE drum
- 25 kg PE canister

Safety and handling

Information concerning the safety of this product is listed in the corresponding Safety Data Sheet, which will be sent with the first delivery or upon updating. Such information is also available from:

Evonik Industries AG, IM-PT-PS
E-mail sds-im@evonik.com
Phone +49 6181 59-4787
Fax +49 6181 59-4205

We recommend that information concerning the product safety of our organosilanes be obtained and carefully read prior to their use.

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