

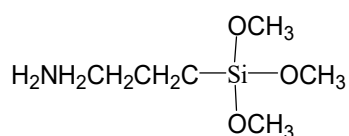


## 3-aminopropyl trimethoxysilane

### RK-G540

#### Product description

#### Structural formula:



Molecular formula: C<sub>6</sub>H<sub>17</sub>N<sub>1</sub>O<sub>3</sub>Si

Molecular weight: 179.3

CAS No. : 13822-56-5

Chemical name: 3-aminopropyl trimethoxy-silane

#### peculiarity

RK-G540 It is an organosilane with an active amine group and a hydrolyzable methoxysilicyl difunctional group. This bifocal structure gives RK-G540 special properties: it is able to organically bond inorganic materials (such as glass, metal, fillers) and organic polymers (such as thermoplastics, thermosets or elastomers) together to promote adhesion, crosslinking agents and/or surface modifiers. It is a colorless, ammoniacal liquid that is soluble in alcohols, chain hydrocarbons, and aromatic hydrocarbons.

#### Physical and chemical data

nature	Numerical value
appearance	Colorless transparent liquid
purity	≥98.0%



Density 20°Cg/ml	1.011-1.021
Closed cup flash point	49.1±19.8°C
Refractive index 25°C	1.4150-1.4250
chroma	≤15
Free chlorine ppm	≤30

Note: The above data is for reference only and cannot be used as technical specifications

### Reaction property

In the presence of water, RK-G540 will hydrolyze the silicon hydroxyl groups that produce domestic waves and form bonds on the surface of various inorganic materials. The amino groups of RK-G540 with organic properties can react with suitable organic polymers.

RK-G540 can self-catalyze hydrolysis reaction. The PH of the hydrolysate is about 10. Suitable inorganic materials like: glass, glass fiber, glass wool, mineral wool, silica, sand, mica, aluminum hydroxide, quartz, calcium silicate, kaolin, talc, other silicate fillers, metal oxides and metals. Resins that can be used for RK-G540 include epoxy, phenolic, furan, melamine, polyurethane, PA, PBT, PC, EVA, modified PP, PVB, PVAC, PVC, acrylic and silicone rubber. RK-G540 can react in ketone or ester solvents. The silane itself or the silanized substrate reacts with carbon dioxide to form the corresponding carbonate or carbamate.

### Product application

RK-G540 is an important component in many industrial applications, such as:

- Glass fiber/electronic fabric composites: as a whole or as an



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infiltrating component

- As a primer for glass and metal
- Casting resin: as an additive to cooling cured phenolic resin and furan resin
- Sealants and adhesives: as primer or additive
- Inorganic filled compounds: Pretreatments of fillers or pigments or as additives to polymers
- Paints and coatings: as a primer or additive to improve adhesion to the substrate

**The RK-G540 also brings important features to end products, including:**

- Improve mechanical properties such as bending strength, tensile strength, impact strength and modulus of elastomers
- Improve moisture resistance and corrosion resistance
- Improve electrical properties, such as dielectric constant, volume resistivity

**Improve processing performance, such as:**

- dispersivity
- adhesiveness
- Rheological behavior: reduce viscosity, Newton behavior
- Increase filler load

**Product security, handling and storage**

Before using the product, you should carefully read the latest product safety technical information and toxicity data of the product as well as the correct storage and use information of the product. The container should be sealed after opening to prevent water vapor from entering and producing hydrolysis.

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Stored in the original unopened container at room temperature, this product has a shelf life of one year from the date of production. After passing the test, the buyer will decide whether to continue to use the expired product.

**Note:** The Company is only responsible for the sales specifications of the products at the time of shipment, and shall not be liable for any indirect or incidental damages.

**Packing :** 5L, 10L, 25L, 200L, 1000L