

3-mercaptopropyl trimethoxysilane RK-G189

Product description Structural formula: HSH₂CH₂CH₂C—Si—OCH₃ OCH₃ Molecular formula: C6H1603SSi Molecular weight: 196.34 CAS No. : 4420-74-0 Chemical name: 3-mercaptopropyl trimethoxy-silane

peculiarity

RK-G189 It is an organosilane with an organic sulfhydryl group and a hydrolyzable methoxysilicyl difunctional group. This bifocal structure gives RK-G189 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 transparent liquid with a slight odor of mercaptan, soluble alcohols, ketones, aliphatic or aromatic hydrocarbons.

Physical and chemical data

nature	Numerical value
appearance	Light yellow transparent liquid
purity	≥98.0%
Density 20℃g/ml	1.0500-1.0600

Tianjin Ruike Chemical Co. LTDTel:+86 18526852692Add:Room 116-11, 160 Xiangyuan Road, Jingjin Science and Technology Valley Industrial Park, Wuqing
District, Tianjintjrkhg@126.comwww.rk-chem.com



Boiling point 760mmHg	213−215℃
Closed cup flash point	96℃
Refractive index $25^\circ\!\!C$	1.4370-1.4470

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

Reaction property

RK-G189 In the presence of water, the methoxy group will be hydrolyzed to form a reactive silanol group, which can form a bond with a variety of inorganic substrates. The organic sulfhydryl group of RK-G189 can react with suitable organic polymers. The hydrolysis of RK-G189 can be catalyzed by acid. Suitable inorganic materials: glass, fiberglass, silica, quartz, sand, cristobalite, mica, kaolin, talc, other silicate spices and metals. **RK-G189 is an important component in many industrial products, such as:**

- Glass composites: as a whole or as an infiltrating component
- Glass and metal primer
- Sealants and adhesives: as primers, additives or chemical modifications to polymers
- Inorganic filled compounds: pretreatments of fillers or pigments or as additives to polymers

The RK-G189 also brings important features to end products, including:

- Compression deformation
- Improve mechanical properties such as bending strength, tensile strength, impact strength, tear strength and elastic modulus
- Improve moisture resistance and corrosion resistance
- Improve electrical properties, such as dielectric constant, volume resistivity

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• Increase thermal resistivity

Improve processing performance, such as:

- Curing time
- dispersivity
- Rheological behavior (e.g. viscosity reduction)
- Increase filler load

Product security, handling and storage

The container should be sealed after opening to prevent water vapor from entering and producing hydrolysis.

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