Power Chemical   *PCC*

SiSiB® PC2300

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gamma-Mercaptopropyltrimethoxysilane

$$HS-CH_2CH_2CH_2-Si \begin{array}{c} OCH_3 \\ | \\ -OCH_3 \\ | \\ OCH_3 \end{array}$$
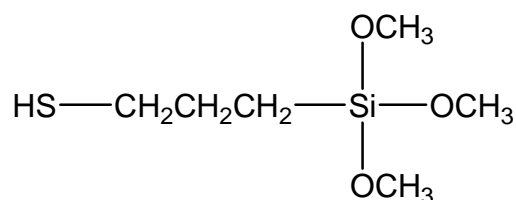
Introduction

SiSiB® PC2300 is a mercapto-functional silane that finds use as a coupling agent in polysulfide and polyurethane caulks and sealants. It is especially useful in sulfur-cured and metal oxide-cured elastomers. Chemically bonding reinforcing minerals like silica, clay, mica and talc to the polymer matrix, properties including modulus, tensile and tear strength, heat buildup, abrasion resistance, resilience, compression set and cure time are improved in mineral-filled elastomers. It can be used as a pretreatment on minerals or added at the time of compounding. Being a rather efficient and fast sulfur containing silane, typically lower silane loading levels are used.

Features and Benefits

➢ Improves the adhesion of polysulfide and polyurethane sealants to glass and metal surfaces.
➢ Improves low-rolling resistance in silica-reinforced tire tread compounds.
➢ Enhances properties in mineral-reinforced articles such as shoe soles, rubber goods.

Reactivity

Materials to be avoided:
Water/moisture, Acids, Oxidizing agents
Dangerous reactions
Contact with water releases flammable gases
Reacts with acids forming hydrogen sulfide

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SiSiB® PC2300

Typical Physical Properties

Chemical Name	*gamma*-Mercaptopropyltrimethoxysilane
CAS No.	4420-74-0
EINECS No.	224-588-5
Formula	$C_6H_{16}O_3SSi$
Molecular Weight	196.4
Color and Appearance	Colorless to light straw transparent liquid
Density $_{25/25°C}$	1.057
Boiling Point	212°C [760mmHg]
Refractive Index	1.440 [25°C]
Flash Point	88°C
Min. Purity	98.0%

Suitable for use in polymer system such as

➢ Butyl
➢ Epoxy
➢ Neoprene
➢ Nitrile
➢ Phenolic
➢ Polysulfide
➢ Polyurethane
➢ Styreue Butadiene

Storage stability

SiSiB® PC2300 has a shelf life of at least 12 month, if stored dry and in the tightly closed original containers at 25°C.

Handling

➢ Do not store together with acids.
➢ Store away from water/moisture.
➢ Store away from oxidizing agents