## SiSiB® PC3500

## 2-(3,4-Epoxycyclohexyl)-ethyltrimethoxysilane

#### CHEMICAL STRUCTURE

$$OCH_3$$
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#### INTRODUCTION

SiSiB® PC3500 is a clear colorless, low-odor liquid. SiSiB® PC3500 may be used as an adhesion promoter (coupling agent) for organic/inorganic interfaces, as a surface modifier (e.g. regulating surface polarity) or as a crosslinking agent (moisture-curing of polymers). When used as coupling agent, it generally reduces the sensitivity of the products' mechanical and electrical properties to heat and/or moisture.

#### TYPICAL PHYSICAL PROPERTIES

CAS No.	3388-04-3
EINECS No.	222-217-1
Formula	C <sub>12</sub> H <sub>22</sub> O <sub>4</sub> Si
Molecular Weight	246.38
Boiling Point	310°C [760mmHg]
Flash Point	112°C
Color and Appearance	Colorless clear liquid
Density <sub>25/25°C</sub>	1.069
Refractive Index	1.427[25°C]
Min. Purity	98.0%

**Caution:** SiSiB® PC3500 is soluble in water after hydrolysis, alcohol, acetone and most aliphatic esters at normal application levels under five percent. Hydrolysis releases methanol.

#### APPLICATIONS

SiSiB® PC3500 has a more reactive epoxy group when compared to the more common SiSiB® PC3100. This enhanced reactivity is due to the added strain put on the epoxy

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group by the presence of the second ring; the cyclohexyl. The increased epoxy reactivity combined with the greater organic character from the cyclohexyl group often results in enhanced mechanical properties and better wet-strength retention of properties when compared to SiSiB® PC3100.

SiSiB® PC3500 can be used to improve dry and wet strength in cured composites reinforced with glass fiber rovings.

SiSiB® PC3500 can be used to enhance wet electrical properties of epoxy-based encapsulate and packaging materials.

SiSiB® PC3500 can be used to eliminate the need for a separate primer in polysulfide and urethane sealants.

SiSiB® PC3500 can be used to improve adhesion in waterborne acrylic sealants and in urethane and epoxy coatings.

#### PACKING AND STORAGE

SiSiB® PC3500 is supplied in 200Kg steel drum or 1000Kg IBC container.

In the unopened original container SiSiB® PC3500 has a shelf life of one year in a dry and cool place.

#### Notes

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

We specifically disclaim any other express or implied warranty of fitness for a particular purpose or merchantability. We disclaim liability for any incidental or consequential damages.

Please send all technical questions concerning quality and product safety to: silanes@SiSiB.com.

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