

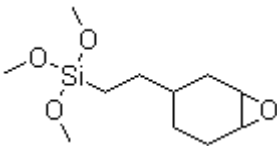
Technical Data Sheet

SiLink™ SCA-E86M

2-(3, 4-Epoxy cyclohexyl) ethyl] trimethoxysilane

Description
<p>SCA-E86M is a versatile epoxy functional organosilane possessing a reactive organic epoxide and hydrolyzable inorganic methoxysilyl groups. The dual nature of its reactivity allows SCA-E86M to bind chemically to both inorganic materials (e. g. glass, metals, fillers) and organic polymers (e. g. thermosets, thermoplastics, elastomers), thus functioning as an adhesion promoter, crosslinking agent and/or surface modifier.</p>

CAS Registry Number	EINECS
3388-04-3	222-217-1

Molecular Formula	Molecular Structure
$C_{11}H_{22}O_4Si$	

The Equivalent Products to Other Manufacturers				
Momentive	Dow Corning	Shin-Etsu	Evonik Degussa	Wacker
A-186	Z-6043	KBM-303	N/A	N/A

Typical Properties	
Index	Value
Molecular Weight	246.38
Appearance	Colorless, low-viscosity liquid
GC Purity, %	≥ 98
Specific Gravity (ρ_{20}), g/cm ³	1.0090
Boiling Point (760mmHg), °C	310



Flash Point, °C	113
Solubility	It is soluble in alcohols, ketones and aliphatic or aromatic hydrocarbons. It will hydrolyze in water, and hydrolyzate is easy to self-polymerization.

Applications and Performance

1. Glass fiber/glass fabric composites: As a finish or a size ingredient.
2. Foundry resins: As an additive to polyurethane resins.
3. Sealants and adhesives: As a primer or additive.
4. Mineral filled composites: For pretreatment of fillers and pigments or as an additive to the polymer.
5. Paints and coatings: As an additive and as a primer for improving adhesion to the substrate, especially glass and metal.
6. Improved shelf life over aminosilanes in polyurethanes.
7. Important product effects that can be achieved through the use of SCA-E86M include:
Improved mechanical properties, such as flexural strength, tensile strength, impact strength and modulus of elasticity.
Improved moisture and corrosion resistance.
Improved electrical properties, for example dielectric constant, volume resistivity.

Packing

This product is available in 25kg plastic pail, 200L steel drums and 1000L immediate bulk container.

Storage and Shelf Life

Should be stored in dry, cool, ventilated room; keep away from water, moisture, high temperature and fire. This product has a shelf life of at least 12 months if stored in tightly closed original container at room temperature.

If this product is kept beyond the shelf life recommend on the product label, it is not necessarily unusable, but a quality control should be performed on the properties relevant to the application.