Technical Data Sheet

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Silfluo LS-E85

Alpha-Methacryloxy Functional Silane

Description:

Silfluo LS-E85 is Methacryloxymethyltriethoxysilane, an alpha-methacryloxy functional silane.

The molecule contains a methacryloxy group and a triethoxysilyl group connected through a methylene bridge.

The alpha-silane structure gives different hydrolysis and condensation behavior compared with conventional gamma-functional silanes.

The methacryloxy group participates in free-radical polymerization systems, including peroxide, UV, EB, and other radical-curing systems.

The triethoxysilyl group hydrolyzes and bonds to hydroxylated inorganic surfaces or forms siloxane linkages under suitable moisture, pH, and catalyst conditions.

Hydrolysis releases ethanol; assess VOC, flammability, and workplace exposure per formulation and local requirements.

Used as adhesion promoter, coupling agent, or reactive silane additive in RTV silicone systems, silane-modified polymers, UV.EB curable coatings, acrylic and methacrylic systems, adhesives, sealants, and organic-inorganic composites.

Performance equivalent to Wacker GENIOSIL XL 36.

Typical Technical Properties

Silfluo Code:	LS-E85
Chemical Name:	Methacryloxymethyltriethoxysilane
Synonyms:	Triethoxysilylmethyl 2-methylprop-2-enoate; (Triethoxysilyl)methylmethacylate
CAS No. :	5577-72-0
EINECS No. :	200-258-5
Molecular Formula:	$C_{11}H_{22}O_5Si$
Molecular Weight:	262.37
Appearance:	Colorless transparent liquid
Purity (by GC, %):	
Density (20°C, g/cm^3):	1.00
Refractive Index (nD 25°C):	1.4225
Boiling Point:	65°C
Flash Point:	100°C

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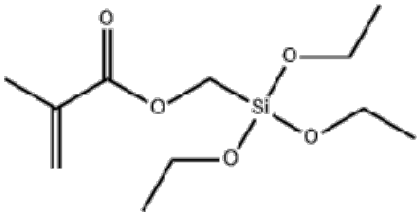
Chemical Structure:



Applications:

1. RTV silicone systems

Used as adhesion promoter or crosslinking additive in room-temperature-vulcanizing silicone systems. Verify cure behavior, adhesion, storage stability, and catalyst demand in the target formulation.

2. Silane-modified polymers and hybrid systems

Used in MS polymer, SPUR, polyurethane, and hybrid sealant systems requiring methacryloxy functionality and triethoxysilyl reactivity. Verify cure profile, modulus, elongation, and adhesion in the final formulation.

3. UV and EB curable coatings

Used as reactive silane additive in radiation-curable acrylic and methacrylic coating systems. Test cure conversion, adhesion, viscosity, yellowing, and storage stability in the target formulation.

4. Adhesives and sealants

Used in radical-curable, moisture-curable, or hybrid adhesive and sealant systems. Verify adhesion to glass, mineral, metal oxide, and selected polymer substrates by substrate-specific testing.

5. Organic-inorganic composites

Used as coupling additive in mineral-filled, glass-reinforced, or hybrid resin systems. Verify interfacial adhesion, moisture resistance, and mechanical properties by application testing.

6. Surface treatment and primers

Used in primer and surface treatment formulations for glass, silica, mineral fillers, and metal oxide surfaces. Verify treatment efficiency and compatibility before scale-up.

Package &Storage:

In 25kg pail, 200kg drum.

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers.

Storage beyond the shelf life does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.