Technical Data Sheet

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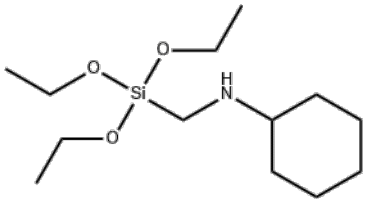
Silfluo LS-E87

Alpha-Secondary Amino Functional Silane

Description:

Silfluo LS-E87 is N-[(triethoxysilyl)methyl]cyclohexylamine, a secondary amino alpha-silane.
The molecule contains a cyclohexyl-substituted secondary amine connected to silicon through a methylene bridge, and a triethoxysilyl group.
The alpha-silane structure gives different hydrolysis and condensation behavior compared with conventional gamma-functional silanes.
The secondary amine reacts with isocyanate groups and interacts with compatible resin systems.
The triethoxysilyl group hydrolyzes and forms siloxane linkages or bonds to hydroxylated inorganic surfaces under suitable moisture, pH, and catalyst conditions.
Used as end-capping agent, adhesion promoter, crosslinking additive, or reactive silane component in SMP, MS polymer, SPUR, RTV silicone, polyurethane, adhesive, sealant, and primer systems.
Cure behavior, catalyst demand, adhesion, color stability, and storage stability require verification in the target formulation.
Performance equivalent to Wacker GENIOSIL XL 926.

Typical Technical Properties

Silfluo Code:	LS-E87
Chemical Name:	N-[(Triethoxysilyl)methyl]cyclohexylamine
Synonyms:	CyclohexylaminomethylTriethoxysilane
CAS No. :	26495-91-0
EINECS No. :	247-744-4
Molecular Formula:	$C_{13}H_{29}NO_3Si$
Molecular Weight:	275.46
Appearance:	Colorless transparent liquid
Purity (by GC, %):	95min
Density (25°C, g/cm3):	0.95
Refractive Index (nD 25°C):	1.4377
Boiling Point:	236°C
Flash Point:	119°C
Chemical Structure:	

Applications:

1. SMP, MS polymer, and SPUR systems

Used as end-capping agent or reactive silane component for NCO-terminated polyurethane prepolymers and silane-modified polymer systems. Verify reaction conditions, residual NCO level, viscosity, cure profile, and storage stability during formulation testing.

2. RTV silicone systems

Used as adhesion promoter or crosslinking additive in room-temperature-vulcanizing silicone systems. Verify skin-over time, deep-section cure, adhesion, and storage stability in the target formulation.

3. Polyurethane adhesives and sealants

Used as reactive silane additive in one-part and two-part polyurethane adhesive and sealant systems. Verify adhesion, moisture sensitivity, gelation behavior, and storage stability by application testing.

4. Primers and surface treatment

Used in primer and surface treatment formulations for glass, mineral fillers, metal oxide surfaces, and other hydroxylated inorganic substrates. Conduct substrate-specific adhesion testing before use.

5. Hybrid adhesive and sealant systems

Used in hybrid adhesive and sealant formulations requiring secondary amine functionality and alkoxysilane reactivity. Verify compatibility, cure behavior, and final mechanical properties in the target system.

Packing

In 25kg pail and 200kg drum.

Safety and Storage

Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight, heat, and moisture exposure. The shelf life is 12 months from the date of manufacture when stored in original unopened containers. Storage beyond the shelf life does not necessarily mean the product is unusable; however, the properties required for the intended use must be thoroughly checked for quality assurance reasons prior to application.