Technical Data Sheet

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Silfluo LS-AB31

Secondary Phenyl-Amino Functional Silane

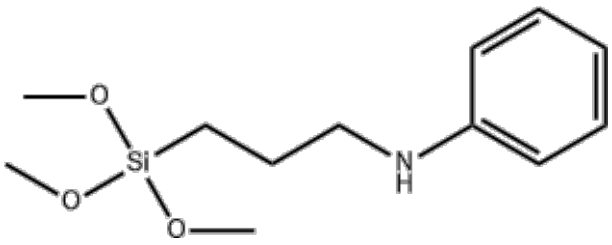
Description

Silfluo LS-AB31 is N-Phenyl-3-aminopropyltrimethoxysilane, a secondary amino-functional silane.
The molecule contains a secondary phenylamino group and one trimethoxysilyl group connected by a propyl chain.
The secondary amine interacts with compatible resin systems including urethanes, epoxies, acrylates, phenolics, and selected thermosetting resins.
The trimethoxysilyl group hydrolyzes and reacts with hydroxylated inorganic surfaces including glass, silica, mineral fillers, and metal oxide surfaces.
The phenyl group improves compatibility with aromatic and phenolic resin systems.
Used as adhesion promoter, coupling agent, or surface treatment additive in adhesives, sealants, coatings, primers, glass fiber sizing, foundry sand binders, and selected laminate systems.
Performance equivalent to industry standards: Momentive Y-9669, Dow Z-6083, Shin-Etsu KBM-573.

Typical Physical Properties

Silfluo Code:	LS-AB31
Chemical Name:	N-phenyl-3-aminopropyltrimethoxysilane
Synonyms	N-[3-(Trimethoxysilyl)propyl]aniline; 3-(Phenylamino)propyltrimethoxysilane
CAS No. :	3068-76-6
EINECS No. :	221-328-2
Molecular Weight:	255.39
Appearance:	Colorless to yellowish, transparent liquid
Purity (by GC, %):	95.0 min
Density (ρ20°C, g.cm³)	1.070
Refractive Index (n25.D)	1.5060±0.0050
Boiling Point:	310°C
Flash Point:	110 °C closed cup

Chemical Structure:



Applications

1. Adhesives and sealants

Used as adhesion promoter in adhesive and sealant systems based on urethane, epoxy, acrylate, phenolic, or other compatible resins. Verify adhesion, color stability, and cure behavior in the target formulation.

2. Coatings and primers

Used in coating and primer systems requiring secondary amine functionality and alkoxysilane reactivity. Test wet adhesion, dry adhesion, corrosion resistance, and film properties in the target system.

3. Glass fiber sizing and finishes

Used in glass fiber sizing and finishing systems for compatible resin matrices. Verify interfacial adhesion, wet strength retention, and composite properties in the target resin system.

4. Foundry sand binders

Used in phenolic, furan, and other foundry binder systems. Test sand strength, humidity resistance, gas evolution, and processing behavior under customer process conditions.

5. Phenolic and epoxy laminate systems

Used in phenolic and epoxy laminate systems requiring aromatic compatibility and secondary amine functionality. Per Shin-Etsu KBM-573 data, applicable to laminated plate applications; verify in the target laminate system.

6. Mineral filler and particulate treatment

Used for silica, mineral fillers, fiberglass, and particulate filler treatment. Verify dispersion, compatibility, and composite properties by application testing.

Packaging

In 25kg pail, 200kg drum and 1000kg IBC

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is 24 months. It is shipped as hazardous substance.