Technical Data Sheet

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Silfluo LS-ND42

Alpha-Functional Phenylamino Silane

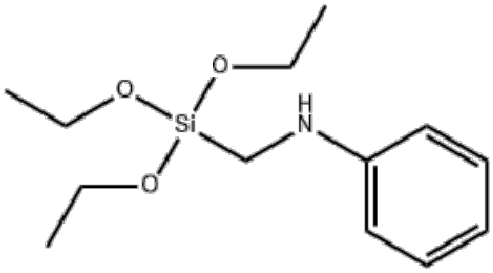
Description

Silfluo LS-ND42 is (N-Phenylamino)methyltriethoxysilane, an alpha-functional phenylamino silane.
The molecule contains a phenylamino group 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 phenylamino group interacts with compatible organic resin systems.
The triethoxysilyl group hydrolyzes and forms siloxane linkages or bonds to hydroxylated inorganic surfaces.
Hydrolysis releases ethanol; assess VOC, flammability, and workplace exposure per formulation and local requirements.
Used as adhesion promoter, crosslinking additive, or moisture-scavenging silane in silane-curing adhesives, sealants, RTV silicone, SMP.MS polymer systems, primers, and composites.
Cure behavior, adhesion, heat aging, and storage stability require verification in the target formulation.
Performance equivalent to industry standards: Wacker GENIOSIL XL 973.

Typical Physical Properties

Silfluo Code:	Silfluo LS-ND42
Chemical Name:	(N-Phenylamino)methyltriethoxysilane
Synonyms	N-(Triethoxysilylmethyl)aniline; Anilino-methyl-triethoxysilane;
CAS No. :	3473-76-5
EINECS No. :	222-441-1
Molecular Formula:	$C_{13}H_{23}NO_3Si$
Molecular Weight:	269.41
Appearance:	Colorless transparent to pale yellow liquid
Density (ρ20°C, g/cm³)	1.030 - 1.050
Refractive Index (n25.D)	1.4800-1.4900
Boiling Point:	136°C
Flash Point:	>110°C
Purity	97% min

Chemical Structure:



Applications

1. Silane-curing adhesives and sealants

Used as adhesion promoter, crosslinker, or moisture scavenger in silane-curing adhesive and sealant formulations. Per Wacker GENIOSIL XL 973 data, alpha-phenylamino silanes function in tin-free catalyst systems in certain sealant formulations; verify catalyst requirement in the target system.

2. RTV silicone systems

Used in RTV silicone systems requiring phenylamino functionality and triethoxysilyl reactivity. Verify cure behavior, adhesion, and storage stability by formulation testing.

3. SMP . MS polymer systems

Used in silane-modified polymer and hybrid sealant systems. Test adhesion, cure profile, modulus, elongation, and heat aging in the final formulation.

4. Primers and surface treatment

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

5. FRP and mineral-filled composites

Used as a coupling additive in fiberglass-reinforced plastics, mineral-filled epoxy, or phenolic systems. Verify interfacial adhesion, heat aging, and moisture resistance by application testing.

Packaging

In 20kg pail,190kg drum and 950kg IBC

Safety and Storage

Keep away from heat and open flame. When stored at or below 25°C in the original unopened containers, this product has a usable life of 24 months from the date of production (200L drum)