



Silfluo LS-E88

Alpha-Amino Functional Silane

Description:

Silfluo LS-E88 is a highly specialized, ultra-fast reacting alpha-amino functional silane, chemically identified as N-(2-Aminoethyl)aminomethyltriethoxysilane. Distinguished by its unique alpha molecular architecture—where the reactive amino group is separated from the silicon atom by only a single methylene bridge (-CH₂-) rather than the traditional propylene bridge—it exhibits the profound alpha-effect. This structural proximity fundamentally alters the electron density around the silicon atom, resulting in extraordinarily rapid hydrolysis and crosslinking rates compared to standard gamma-aminosilanes. It is engineered as a premium adhesion promoter and crosslinker for high-performance moisture-curing polymer systems.

Typical Technical Properties

Silfluo Code:	LS-88
Chemical Name:	2-aminoethylamine methyl triethoxysilane
Synonyms:	
CAS No. :	
Molecular Formula:	C ₉ H ₂₄ N ₂ O ₃ Si
Molecular Weight:	236.44
Appearance:	Colorless transparent liquid
Purity (by GC, %):	
Density (20°C, g/cm ³):	
Refractive Index (nD 25°C):	

Features

- 1. The Alpha-Effect:** The ultra-short methylene bridge creates intense electronic interactions, drastically accelerating the hydrolysis of the ethoxy groups upon exposure to atmospheric moisture, completely eliminating the need for tin-based catalysts.
- 2. Extreme Low-Temperature Curing:** Capable of maintaining high reactivity and achieving rapid, deep curing even in cold or extremely low-humidity environments where conventional silanes become dormant.
- 3. Superior Adhesion Promotion:** The diamino functionality (one primary and one secondary amine) maximizes chemical bonding sites, ensuring cohesive failure on difficult inorganic substrates like glass, aluminum, and engineered plastics.
- 4. Reduced VOC Profile:** As a triethoxy-based silane, it releases ethanol rather than methanol during hydrolysis, offering a more environmentally friendly and safer curing byproduct.

Applications:

- 1. Advanced RTV Silicone Rubbers:** Serves as an ultra-fast crosslinking agent and adhesion promoter for

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Technical Data Sheet



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Room Temperature Vulcanizing (RTV) silicone sealants. It enables rapid skin-over times and outstanding unprimed adhesion to a wide array of construction substrates.

2. Tin-Free Silane-Modified Polymers (SMP / SPUR): Extensively utilized in the formulation of highly reactive MS Polymers and polyurethane prepolymers, allowing formulators to completely phase out heavy-metal (tin) catalysts while maintaining exceptionally fast cure rates.

3. High-Performance Primers & Coatings: Formulated into specialized industrial primers and protective coatings to dramatically enhance interfacial bond strength, especially in applications requiring immediate handling strength and fast turnaround times.

4. Rapid-Cure Adhesives: Deployed as a critical reactive additive in two-part (2K) epoxy and structural polyurethane adhesives to accelerate the curing kinetics and improve long-term moisture resistance at the bond line.

Packing

In 25kg pail and 200kg drum.

Safety and Storage

Keep in a cool, strictly dry, and well-ventilated environment, aggressively avoiding direct sunlight, heat, and ignition sources. Because of its extreme reactivity (alpha-effect), it must be rigorously protected from any ambient moisture prior to formulation. Keep in tightly sealed, original unopened containers. Storage beyond the initially recommended 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.