Technical Data Sheet

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Silfluo LS-AS332

Latent Aminosilane (Ketimine Triethoxysilane)

Description:

Silfluo LS-AS332 is a highly specialized, eco-friendly latent curing agent and adhesion promoter, chemically identified as 3-(1,3-Dimethylbutylidene)aminopropyltriethoxysilane. Unlike standard primary aminosilanes that react instantly, this advanced molecule features a blocked amine (ketimine) structure derived from methyl isobutyl ketone (MIBK), coupled with a highly crosslinking triethoxysilyl group.

In anhydrous (water-free) environments, it remains completely inert toward highly reactive isocyanate (-NCO) and epoxy resins, providing exceptional in-can stability and prolonged shelf life for one-component (1K) formulations. Upon exposure to atmospheric moisture, it rapidly unblocks to release evaporating MIBK and a highly active primary amine, triggering a deep-section cure. Furthermore, its triethoxy backbone ensures that hydrolysis releases only benign ethanol, making it the ultimate safe and eco-compliant choice for premium industrial sealants and coatings.

Performance equivalent to industry standards: Shin-Etsu KBE-9103.

Typical Physical Properties

Silfluo Code:	LS-AS332
Chemical Name:	3-(1,3-dimethylbutylidene)aminopropyltriethoxysilane;
Synonyms	N-(1,3-Dimethylbutylidene)-3-(triethoxysilyl)-1-propanamine;
CAS No. :	116229-43-7
EINECS No. :	467-100-8
Molecular Formula:	$C_{15}H_{33}NO_3Si$
Molecular Weight:	303.52
Appearance:	Colorless to pale yellow liquid
Purity (by GC, %):	98min
Density (25°C, g/cm³):	0.93
Refractive Index (n25/D):	1.437
Boiling Point:	134°C
Flash Point:	131°C Closed Cup
Chemical Structure:	

Features

1. Latent Curing (Exceptional In-Can Stability): The advanced ketimine blocking technology prevents premature crosslinking within the cartridge, empowering formulators to design true 1K polyurethane and epoxy systems with drastically extended shelf lives.

2. Moisture-Triggered Reactivity: Upon application, ambient humidity seamlessly unblocks the amine, rapidly accelerating curing kinetics and ensuring excellent, bubble-free deep-section curing without the need for thermal baking.
3. High-Density 3D Crosslinking: The three hydrolyzable ethoxy groups form a robust, densely crosslinked inorganic siloxane network, delivering extraordinarily strong, moisture-resistant covalent bonds to difficult substrates like glass, aluminum, and engineered plastics.

Applications:

Silfluo LS-AS332 is specifically engineered for high-performance, reactive polymer systems:
1. Premium 1K Polyurethane & Epoxy Sealants: The absolute material of choice for formulating high-performance, one-component architectural and automotive sealants where long-term cartridge stability must be perfectly balanced with ultra-fast curing upon extrusion.
2. Heavy-Duty Industrial Coatings: Serves as an advanced crosslinking additive in heavy-duty PU and epoxy protective coatings, dramatically enhancing the film's chemical resistance, hardness, and unprimed wet adhesion to metallic substrates.
3. Advanced Eco-Friendly Primers: Formulated into specialized, low-toxicity surface primers designed to promote the adhesion of structural adhesives to challenging inorganic and metallic surfaces.

Packing

In 200L drum and 1000kg IBC.

Safety and Storage

Keep in a cool, strictly dry, and well-ventilated environment, aggressively avoiding direct sunlight, heat, and open flames. The shelf life is a minimum of 12 months from the date of manufacture when stored at or below 25°C in tightly sealed, original unopened containers.