Technical Data Sheet

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Silfluo LS-PHIPS

Phenyl Enoxy Silane

Description:

Silfluo LS-PHIPS is a highly specialized, ultra-premium organosilane chemically identified as Phenyltriisopropenoxysilane. This unique molecule represents the absolute pinnacle of functional silane architecture by combining a highly stable phenyl group with three highly reactive, moisture-curing isopropenoxy (enoxy) groups.

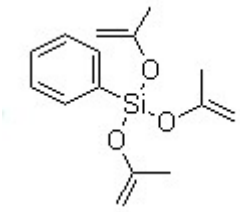
This strategic combination delivers a dual-performance profile unmatched by standard crosslinkers. The isopropenoxy groups ensure a 100% neutral, MEKO-free cure that releases only benign acetone, making it exceptionally safe and non-corrosive. Simultaneously, the bulky phenyl ring injects extreme thermal stability, brilliant UV resistance, and a significantly elevated refractive index into the cured polymer network.

LS-PHIPS is the absolute premier crosslinker and adhesion promoter for advanced, high-temperature RTV silicones, optical encapsulants, and heavy-duty composites operating in extreme environments.

Typical Physical Properties

Silfluo Code:	LS-PHIPS
Chemical Name:	Phenyltriisopropenoxysilane
Synonyms	Silane,tris[(1-methylethenyl)oxy]phenyl-;
CAS No. :	52301-18-5
EINECS No. :	411-340-8
Molecular Formula:	$C_{15}H_{20}O_3Si$
Molecular Weight:	276.40
Appearance:	Colorless transparent liquid
Purity (by GC, %):	95 min
Density (25°C, g/cm³):	1.055-1.065
Refractive Index (n25/D):	1.4900-1.5000
Boiling Point:	298.5°C
Flash Point:	135.2°C Closed Cup

Chemical Structure:



Applications:

Silfluo LS-PHIPS is strictly engineered for high-performance, eco-friendly reactive polymer systems:

1. High-Temp De-Acetone RTV Silicones: Acts as the primary crosslinking agent in the manufacturing of specialty, extreme-temperature-resistant, MEKO-free silicone sealants used in automotive gaskets, aerospace components, and industrial ovens.
2. Optical & Electronic Encapsulants: The absolute material of choice for neutral-curing protective coatings and potting compounds used on sensitive printed circuit boards (PCBs) and high-brightness LED packaging where corrosion resistance and optical clarity are strictly mandated.
3. Advanced Composite Modifier: Utilized as a premium surface modifier and coupling agent for reinforcing mineral fillers in high-temperature thermosetting resins, significantly improving the composite's structural integrity under thermal stress.

Packing

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

Safety and Storage

Keep in a cool, strictly dry, and well-ventilated environment. 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.