Technical Data Sheet

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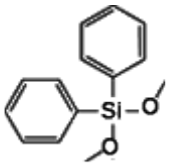
Silfluo LS-M12

Phenyl Functional Organosilane

Description:

Silfluo LS-M12 is Diphenyldimethoxysilane, a bifunctional phenyl-functional dimethoxysilane.
The molecule contains two phenyl groups and two hydrolyzable methoxy groups on silicon.
The difunctional methoxy structure enables controlled linear chain extension and condensation without introducing trifunctional crosslinking sites.
The dual phenyl substitution raises refractive index, thermal stability, and UV resistance of derived siloxane networks relative to mono-phenyl analogs.
Used as reactive intermediate in phenyl silicone polymer synthesis, as external electron donor in Ziegler-Natta polyolefin catalysis, and as electrolyte additive in lithium-ion battery systems.
Performance equivalent to Evonik Dynasylan 6010, Shin-Etsu KBM-202SS, and Dow AY43-047 . Z-6047.

Typical Technical Properties

Silfluo Code:	LS-M12
Chemical Name:	Diphenyldimethoxysilane
Synonyms:	
CAS No. :	6843-66-9
EINECS No. :	229-929-1
Molecular Formula:	$(C_6H_5)_2Si(OCH_3)_2$
Molecular Weight:	244.36
Appearance:	Colorless transparent liquid
Purity (by GC, %):	98.0 min
Density (20°C, g/cm^3):	1.000~1.100
Refractive Index (nD 25°C):	1.5350~1.5450
Boiling Point:	286°C
Flash Point:	121°C
Chemical Structure:	

Applications:

1. Phenyl silicone polymer synthesis

Used as difunctional monomer and chain extender for methylphenyl silicone oils, phenyl silicone resins, and PVMQ elastomers.

2. Polyolefin catalysis — external electron donor

Used as SCA in Ziegler-Natta catalyst systems for isotactic polypropylene production.

3. LED encapsulation and electronic potting

Used as high-RI monomer in optical-grade silicone encapsulants and aerospace-grade potting compounds.

4. Lithium-ion battery electrolyte additive

Used as functional additive for moisture scavenging and protective interface formation in Li-ion cell electrolyte systems.

5. Industrial coatings and adhesives

Used as adhesion promoter and crosslinking component in industrial coatings, sealants, and structural adhesives.

Packing

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

Safety and Storage

Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight, heat, and ignition sources. Ensure the storage area is rigorously protected from humidity, as the product is moisture-sensitive. The shelf life is 24 months from the date of manufacture when stored in original unopened containers. Classified as a non-hazardous substance for transport.