



Silfluo LS-DCPDMS

Silane Electron Donor (Donor-D)

Description

Silfluo LS-DCPDMS is Dicyclopentyl dimethoxysilane, a bifunctional cycloalkyl-functional dimethoxysilane. The molecule contains two cyclopentyl groups and two hydrolyzable methoxy groups on silicon.

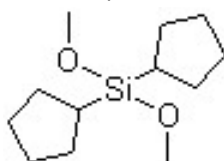
Globally designated as Donor-D in the polyolefin industry; functions as external electron donor (selectivity control agent, SCA) in $MgCl_2$ -supported Ziegler-Natta catalyst systems for propylene polymerization.

The dual cyclopentyl substitution provides stronger steric coordination with catalyst active sites compared with monocycloalkyl donors such as C-Donor (LS-CMMS), driving higher isotactic index in derived polypropylene resins.

Typical Physical Properties

Silfluo Code:	LS-DCPDMS
Chemical Name:	Dicyclopentyl dimethoxysilane
Synonyms	Dimethoxydicyclopentylsilane; Donor-D; D-Donor;
CAS No. :	126990-35-0
EINECS No. :	404-370-8
Molecular Weight:	228.41
Appearance:	Colorless transparent liquid
Density ($\rho_{20^\circ C}$, g/cm ³)	0.99
Refractive Index ($n_{25.D}$)	1.4580~1.4680
Purity:	99% min
Boiling Point:	251 °C
Flash Point:	102 °C (Closed Cup)

Chemical Structure:



Applications

1. High-stiffness and high-crystallinity PP resins

Used as external electron donor in Ziegler-Natta catalyst systems for producing high-isotactic-index PP for automotive, appliance, and structural applications.

2. Injection molding PP grades

Used in catalytic systems for high-crystallinity, high-flow PP homopolymers and copolymers for thin-wall injection molding applications.

3. BOPP and CPP film production

Technical Data Sheet



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Used in propylene polymerization for biaxially oriented (BOPP) and cast (CPP) polypropylene film grades.

4. Specialty polyolefin compounding

Used as kinetic regulator in polyolefin catalyst systems for tailoring chain architecture and mechanical properties.

Packaging

In 20kg pail, 180kg drum and 900kg 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)