LANDU

Technical data sheet
TDS-DUVERA-5020-L-EN
Revision 1.0, November 2026

LANDUSIL DUVERA

5020-L

Vinyl-Terminated Polydimethylsiloxane

Vinyl-terminated PDMS, about 1,000 mm^2/s, base polymer for addition-cure silicones

Chemical identity

Chemical name
Vinyl-terminated polydimethylsiloxane

CAS number
68083-19-2

Reactive group
Vinyl (Si–CH=CH_2), both ends

Physical form
Liquid

Product description

LANDUSIL DUVERA 5020-L is a linear polydimethylsiloxane with a dimethylvinylsiloxy group at each chain end, supplied as a clear liquid of about 1,000 mm^2/s. The vinyl content is about 0.18 – 0.26 %.

In platinum-catalyzed addition cure the vinyl ends react with Si–H crosslinkers to form the elastomer or gel network. The fluid is a base polymer for assembly adhesives, liquid injection formulations, mold-making silicones and electronic gels.

Features and benefits

- Vinyl groups at both chain ends
- Base polymer for platinum addition cure
- About 1,000 mm^2/s, easy to compound
- Linear structure for defined network
- 100 % active, no solvent

Specification

Property	Unit	Value	Test method
Appearance		**Clear liquid**	Visual
Kinematic viscosity, 25 °C	mm^2/s	**900 – 1,100**	Capillary viscometer, 25 °C
Vinyl content	%	**0.18 – 0.26**	Titration

Tested on every batch and reported on the Certificate of Analysis.

Typical properties

Molecular weight	approx. 28,000 g/mol
Density, 25 °C	approx. 0.97 g/mL
Vinyl equivalent	approx. 0.07 – 0.10 mmol/g

For guidance only; not part of the specification.

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Applications

Addition-cure assembly adhesives
Vinyl polymer for bonding and potting adhesives.

Liquid silicone injection formulations
Base polymer for injection-molded parts.

Silicone mold making
Base for platinum-cure mold rubbers.

Electronic gel networks
Soft gel networks for encapsulation.

Guidelines for use

Cure balance	Match the Si–H content of the crosslinker to the vinyl content so that the ratio is set deliberately.
Inhibition	Keep sulfur, tin and amine compounds away from the platinum catalyst; they can stop the cure.

These levels are starting points. Determine the optimum level and method in trials under your own conditions.

Handling and safety

- Contact with Si–H materials and platinum catalysts starts a cure; keep components separate until use.
- Spilled fluid makes floors very slippery; clean up immediately.
- Read the Safety Data Sheet before use.

Storage and shelf life

Store in tightly closed original containers in a cool, dry place. Shelf life is 12 months from the date of manufacture in unopened containers.

Packaging

25 kg plastic drum, 200 kg steel drum, 1,000 kg IBC. Other pack sizes on request.

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