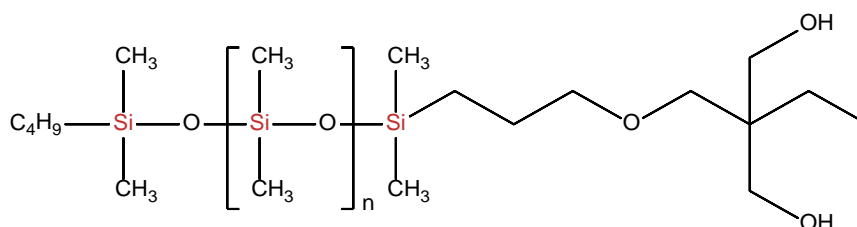


ADDSiL™ 2051 Hydroxyl-Terminated Silicone Prepolymer

INTRODUCTION

ADDSiL™ 2051 is a mono-terminal, bishydroxyl-functional silicone prepolymer with reactivity similar to polyols. It readily reacts with -NCO, -COOH, and other functional groups, making it ideal for synthesizing silicone-modified polyurethanes, polyesters, and polycarbonates. It enhances final resins with improved hand feel, abrasion resistance, anti-blocking, water repellency, and anti-graffiti performance.

CHEMICAL STRUCTURE



FEATURES & BENEFITS

- High reactivity toward isocyanate (-NCO) groups
- Improves abrasion resistance, anti-fouling, and water/oil repellency
- Excellent hand feel and slip properties
- Filler dispersion stabilization with low viscosity
- Improved adsorption to filler surfaces via reactive functional groups

PHYSICAL PROPERTIES

Appearance	Light yellow transparent liquid
Hydroxyl Value (mg KOH/g)	112
Average Molecular Weight	1,000
Viscosity (25°C, cP)	30-70
Solid Content (%)	>95.0

Note: These values are typical and are not intended for use as specifications.

APPLICATIONS

- Synthesis of silicone-modified polyurethane resins and emulsions
- Modification of polyester and alkyd resins
- Enhances anti-blocking, abrasion resistance, and tactile properties in coatings and elastomers

USAGE GUIDELINES

For polyurethane synthesis:

- For low molecular weight grades, ADDSiL™ 2051 can be added

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together with other polyols.

- For higher molecular weight grades, pre-reaction with isocyanate (NCO) for 1-2 hours is recommended before adding additional polyol components.
- Recommended reaction temperatures:
With MDI/TDI: approx. 85°C
With IPDI: approx. 105-110°C
- Catalyst addition may be considered to improve reaction efficiency.

PACKING

ADDSiL™ 2051 is available in 25Kg pails and 200Kg drums.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

STORAGE

When stored at temperatures between 5°C and 35°C in the original unopened containers, ADDSiL™ 2051 has a shelf life of 12 months from the date of production.

NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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