

**VERSALINK® DIAMINES –  
CURATIVES AND CHAIN EXTENDERS  
FOR HIGH-PERFORMANCE POLYUREA  
FORMULATIONS**



# VERSALINK® OLIGOMERIC DIAMINES

## Overview of VERSALINK® P grades

	VISCOSITY (cPs @ 25 °C)	PHYSICAL STATE (25 °C)	AMINE EQUIVALENT
VERSALINK® P 250	solid	solid (mp 60 °C)	220–250
VERSALINK® P 650	2,500	liquid	335–475
VERSALINK® P 1000	3,000	liquid	575–625
VERSALINK® P 2000	solid	solid (mp 35 °C)	940–1245

**VERSALINK® oligomeric diamines** are low-reactivity aromatic amines for use in polyurea or polyurea-polyurethane hybrid formulations. They can be liquid-processed at room temperature with monomeric and polymeric MDI or TDI prepolymers as well as other diisocyanates and diisocyanate prepolymers. Pot life values can be controlled and are typically in the range of 1-45 minutes, depending upon the specific VERSALINK® and isocyanate used.

### BENEFITS:

- Long pot life
- Non-hazardous for safe processing
- Low linear shrinkage
- Excellent heat aging
- Excellent abrasion & tear resistance
- Superior chemical & temperature resistance

### APPLICATIONS:

- Two-component sealing systems
- Two-component solvent-free adhesives
- Two-component high-solid coatings
- Castable elastomer & tooling resins



## VERSALINK® P 1000 oligomeric diamines in two-component high solids coatings

	VERSALINK® P 1000/LF-TDI PREPOLYMER (6.2% NCO)	VERSALINK® P 1000/MDI PREPOLYMER (13.2% NCO)
CATALYST	Kosmos® T 12 N at 0.09%	–
STOICHIOMETRY, %	80	95
NONVOLATILES, %	80	72
VISCOSITY, mPs	300	–
POT LIFE, hr	1.75	0.80
TACK FREE TIME, hr	3.5	–
THROUGH-CURE, hr	11.5	–
MEK RUBS	100+	–
PENCIL HARDNESS	21+	–
HOFFMAN SCRATCH	1100G	–
TENSILE, MPa	17.9	27.6
ELONGATION, %	660	600
TEAR STRENGTH, MPa	–	2.8
TABER ABRASION	–	*1 mg/1000 cycles

\*Conventional systems normally achieve an abrasion resistance of 25–50 mg/1000 cycles

# VERSALINK®

## MONOMERIC DIAMINES

Overview of VERSALINK® M grades

	VISCOSITY (mPs @ 25 °C)	PHYSICAL STATE (25 °C)	AMINE EQUIVALENT
VERSALINK® 740 M	–	solid	157
VERSALINK® 130 M	13	liquid	127
VERSALINK® 160 M	68	liquid	161



**VERSALINK® 740 M** is a high performance aromatic diamine curative for use in mixed isomer liquid polyurethane prepolymers or as chain extender in polyol pre-blends. It is used in a variety of coating, adhesive, sealant, and elastomer applications and has also been shown to be an effective curative for epoxy resins.

### BENEFITS:

- Long pot life
- Non-hazardous
- FDA dry-food contact approval
- Excellent physical properties, chemical resistance, and hydrolytic stability
- Wide processing latitude

### APPLICATIONS:

- Two-component cast elastomers
- Two-component adhesives
- Two-component coatings

### SUITABLE SOLVENTS (SOLID CONTENT):

- Acetone (18%)
- Methyl Ethyl Ketone (10.6%)
- Ethyl Acetate (19.6%)
- 2-Ethoxyethyl Acetate (19%)

**VERSALINK® 130 M** and **VERSALINK® 160 M** are cycloaliphatic monomeric diamines with significantly reduced reactivity compared to primary amines. **VERSALINK® 130 M** and **VERSALINK® 160 M** are typically used as chain extender for reaction with aliphatic isocyanates to provide improved mechanical properties in UV-light stable coatings and elastomers.

### BENEFITS:

- Lower reactivity
- High purity
- Improved physical properties
- Liquid at room temperature
- Lower toxicity for VERSALINK® 130 M
- Low yellowing tendency
- High compatibility with a variety of polyols

### APPLICATIONS:

- Two-component spray elastomers
- Two-component spray coatings
- Two-component hand-applied coatings

### AVAILABILITY:

Please contact your Evonik representative for information on commercial availability of VERSALINK® M grades in your territory.

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