

# Vibrathane® 8083

Polyurethane (Polyester, TDI)

Chemtura

## Message:

VIBRATHANE 8083 is a TDI-terminated polyester based prepolymer which yields an 85 Shore A hardness urethane when cured with 4,4'-methylene bis-(ortho-chloroaniline), commonly called MBCA. This prepolymer is liquid at room temperature, exhibits low viscosities at processing temperatures and is exceptionally heat stable.

Vibrathane 8083 elastomers are characterized by:

High tensile and tear strength.

Excellent heat, fuel and solvent resistance.

Outstanding abrasion resistance.

Good low temperature and dynamic properties.

General Information			
Features	Fuel Resistant		
	Good Abrasion Resistance		
	Good Tear Strength		
	Heat Stabilized		
	High Heat Resistance		
	High Tensile Strength		
	Low Viscosity		
	Solvent Resistant		
Forms	Liquid		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.25	g/cm <sup>3</sup>	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	83 to 85		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance (5000 Cycles, 1000 g, H-18 Wheel)	130	mg	ASTM D1044
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	5.03	MPa	
300% Strain	8.73	MPa	
Tensile Strength	42.7	MPa	ASTM D412
Tensile Elongation (Break)	660	%	ASTM D412
Tear Strength			
-- 1	87.0	kN/m	ASTM D624
Split	20	kN/m	ASTM D470
Compression Set (70°C, 22 hr)	25	%	ASTM D395B
Bayshore Resilience	32	%	ASTM D2632
Thermoset	Nominal Value	Unit	

Thermoset Components		
Hardener	Mix Ratio by Weight: 10	
Resin	Mix Ratio by Weight: 100	
Pot Life	5.0 to 6.0	min
Post Cure Time (100°C)	16	hr
Uncured Properties	Nominal Value	Unit
Curing Time (100°C)	0.50 to 1.0	hr
NOTE		
1.	Die C	

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