

Vibrathane® 6060

Polyurethane (Polycaprolactone, TDI)

Chemtura

Message:

VIBRATHANE 6060 is a polycaprolactone based TDI terminated liquid urethane prepolymer that is readily processable by conventional hand and machine mixing techniques. When cured with 4,4'-methylene-bis(2-chloroaniline), this member of the VIBRATHANE family produces high quality vulcanizates in the 60 Shore A hardness range. These tough, high resilience elastomers are characterized by:

Low hardness

Excellent Abrasion Resistance

Low Compression Set

This unusual prepolymer yields a high performance 60A elastomer when cured with MBCA, thereby avoiding the need for mixed curatives or plasticizers which are usually required to achieve hardnesses in this range.

VIBRATHANE 6060 is a high quality product designed for use in high wear mining applications. Its long pot life and low viscosity are attributes that facilitate the casting of large as well as small fabricated parts.

General Information			
Features	Good Abrasion Resistance		
	Good Toughness		
	Low Compression Set		
	Low Hardness		
	Low Viscosity		
	Resilient		
Uses	Mining Applications		
Forms	Liquid		
Processing Method	Casting		
Hardness	Nominal Value		Test Method
Durometer Hardness (Shore A)	62		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Compressive Strength			ASTM D695
5% Strain	0.276	MPa	
10% Strain	0.552	MPa	
15% Strain	0.896	MPa	
20% Strain	1.24	MPa	
25% Strain	1.65	MPa	
Taber Abrasion Resistance (1000 Cycles, 100 g, H-18 Wheel)	23.9	mg	ASTM D1044
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	2.07	MPa	
300% Strain	3.45	MPa	
Tensile Strength	30.3	MPa	ASTM D412
Tensile Elongation (Break)	480	%	ASTM D412

Tear Strength			
-- 1	33.3	kN/m	ASTM D624
Split	3.9	kN/m	ASTM D470
Compression Set (70°C, 22 hr)	6.0	%	ASTM D395B
Bayshore Resilience	30	%	ASTM D2632
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-57.0	°C	ASTM D746
Thermoset	Nominal Value	Unit	
Thermoset Components			
Hardener	Mix Ratio by Weight: 10		
Resin	Mix Ratio by Weight: 100		
Pot Life	9.0	min	
Post Cure Time (115°C)	16	hr	
Uncured Properties	Nominal Value	Unit	
Curing Time (115°C)	1.0	hr	
NOTE			
1.	Die C		

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