

# Adiprene® LFP 850A

Polyurethane (Polyether, PPDI)

Chemtura

## Message:

ADIPRENE® LFP 850A is a PPDI-terminated polyether prepolymer having very low free PPDI content (typical < 0.1%) for easier management of health and safety during handling. ADIPRENE LFP 850A yields a high performance 85-90 Shore A hardness elastomer when cured with VIBRACURE® A 250. The high performance features of ADIPRENE LFP 850A are due to PPDI (p-phenylene diisocyanate), a special building block that imparts exceptional properties to cast polyurethane elastomers. The unique combination of properties exhibited by PPDI-based prepolymers is superior to those available from standard prepolymers based on TDI or MDI.

Features of ADIPRENE LFP 850A include:

Low Free PPDI Content

Excellent Dynamics

Good Tensile/Tear Strength and Elongation

Excellent Resilience

Excellent Hydrolytic Resistance

General Information			
Features	Good Tear Strength		
	High Tensile Strength		
	Hydrolytically Stable		
	Resilient		
Processing Method	Casting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm <sup>3</sup>	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	85 to 90		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Compressive Strength			ASTM D695
5% Strain	1.45	MPa	
10% Strain	2.59	MPa	
15% Strain	3.65	MPa	
20% Strain	5.10	MPa	
25% Strain	6.89	MPa	
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	5.52	MPa	
300% Strain	8.41	MPa	
Tensile Strength	43.4	MPa	ASTM D412
Tensile Elongation (Break)	700	%	ASTM D412
Tear Strength (Split)	14	kN/m	ASTM D470
Compression Set			ASTM D395B
70°C, 22 hr	37	%	

100°C, 22 hr	51	%	
Bayshore Resilience	71	%	ASTM D2632
Thermoset	Nominal Value	Unit	
Pot Life (100°C)	10	min	
Post Cure Time (127°C)	16	hr	
Additional Information	Nominal Value	Unit	
Dynamic Properties			
Storage Modulus : 30°C	1.60E+8	dynes/cm <sup>2</sup>	
Storage Modulus : 150°C	1.50E+8	dynes/cm <sup>2</sup>	
Tangent Delta : 30°C	0.00900		
Tangent Delta : 150°C	0.0200		

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