

Estane® 2103-90A TPU

Thermoplastic Polyurethane Elastomer (Polyether)

Lubrizol Advanced Materials, Inc.

Message:

2103-90A is a thermoplastic polyurethane elastomer.

Feature: Low compression set

General Information			
Features	Low Compression Set		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.14	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/8.7 kg)	23	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow : 1.60 mm	0.70 to 0.80	%	
Across Flow : 1.60 mm	0.70 to 0.80	%	
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	75.8	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	10.0	mg	ASTM D1044
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
50% Strain	76.0	MPa	
100% Strain	11.2	MPa	
300% Strain	24.8	MPa	
Tensile Strength (Break)	44.8	MPa	ASTM D412
Tensile Elongation (Break)	450	%	ASTM D412
Elongation Set After Break	30	%	ASTM D412
Tear Strength ¹	133	kN/m	ASTM D624
Compression Set			ASTM D395B
25°C, 22 hr	25	%	
70°C, 22 hr	28	%	
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-25.0	°C	DSC
Vicat Softening Temperature	107	°C	ASTM D1525
CLTE - Flow	1.5E-4	cm/cm/°C	ASTM D696
Injection	Nominal Value	Unit	
Drying Temperature	88.0 to 104	°C	
Processing (Melt) Temp	204 to 221	°C	
Mold Temperature	16.0 to 60.0	°C	

NOTE

1. Die C

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