

Estane® 2103-80AEN TPU

Thermoplastic Polyurethane Elastomer (Polyether)

Lubrizol Advanced Materials, Inc.

Message:

2103-80AEN is a thermoplastic polyurethane elastomer.

Feature: NSF Standard 61 certified, FDA compliance

General Information			
Agency Ratings	FDA not rated		
	NSF 61		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.13	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (224°C/8.7 kg)	20	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	0.0 - 0.60	%	ASTM D955
Transverse flow	0.50 - 0.70	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	83		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance (1000 g, H-22 Wheel)	20.0	mg	ASTM D1044
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
50% strain, 3.20mm	3.80	MPa	ASTM D412
100% strain, 3.20mm	6.00	MPa	ASTM D412
300% strain, 3.20mm	11.0	MPa	ASTM D412
Tensile Strength (Break, 3.20 mm)	28.9	MPa	ASTM D412
Tensile Elongation (Break, 3.20 mm)	650	%	ASTM D412
Tensile Elongation at Break (3.20 mm)	40	%	ASTM D412
Tear Strength ¹ (3.20 mm)	87.6	kN/m	ASTM D624
Compression Set			ASTM D395B
25°C, 22 hr	30	%	ASTM D395B
70°C, 22 hr	75	%	ASTM D395B
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-45.0	°C	DSC
Vicat Softening Temperature	72.2	°C	ASTM D1525 ²
CLTE - Flow	1.7E-4	cm/cm/°C	ASTM D696
Injection	Nominal Value	Unit	

Drying Temperature	82.0 - 93.0	°C
Processing (Melt) Temp	188 - 204	°C
Mold Temperature	16.0 - 60.0	°C
Injection instructions		
Air Dew Point: <-40°C		
Extrusion	Nominal Value	Unit
Drying Temperature	82.0 - 93.0	°C
Melt Temperature	182 - 199	°C
Extrusion instructions		
Air Dew Point: <-40°C		
NOTE		
1.	C mould	
2.	标准 B (120°C/h), 压力 1 (10N)	

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