

Estane® 2103-80AE TPU

Thermoplastic Polyurethane Elastomer (Polyether)

Lubrizol Advanced Materials, Inc.

Message:

2103-80AE is a thermoplastic polyurethane elastomer.

General Information			
UL YellowCard	E106426-100187492		
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/1.2 kg)	40	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	-0.20 - 0.50	%	ASTM D955
Transverse flow	0.60 - 0.80	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	82		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	4.10	MPa	ASTM D412
100% strain, 3.20mm	5.50	MPa	ASTM D412
300% strain, 3.20mm	11.7	MPa	ASTM D412
Tensile Strength (Break, 3.20 mm)	34.5	MPa	ASTM D412
Tensile Elongation (Break, 3.20 mm)	600	%	ASTM D412
Tensile Elongation at Break (3.20 mm)	70	%	ASTM D412
Tear Strength ¹ (3.20 mm)	105	kN/m	ASTM D624
Compression Set			ASTM D395B
25°C, 22 hr	30	%	ASTM D395B
70°C, 22 hr	33	%	ASTM D395B
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-40.0	°C	DSC
Vicat Softening Temperature	85.0	°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	182 - 210	°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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