

Technical Data Sheet

# Network Polymers Sbs 1003

Styrene Butadiene Styrene Block Copolymer  
 LyondellBasell Industries  
 Engineering Plastics

General			
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.01	1.01 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) <sup>1</sup> (200°C/5.0 Kg)	7.5 g/10 min	7.5 g/10 min	ASTM D1238
Water Absorption (Saturation, 73°F (23°C))	0.070 %	0.070 %	ASTM D570

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Yield)	3800 psi	26.2 MPa	ASTM D638
Flexural Modulus <sup>3</sup>	260000 psi	1790 MPa	ASTM D790B
Flexural Strength <sup>3</sup>	5400 psi	37.2 MPa	ASTM D790B

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Instrumented Dart Impact 73°F (23°C), 0.125 In (3.18 Mm), Total Energy	354 in·lb	40.0 J	ASTM D3763

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness Shore D, 10 Sec, 0.125 In (3.18 Mm), Injection Molded	63	63	ASTM D2240

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 Psi (1.8 Mpa), Unannealed	144 °F	62.2 °C	ASTM D648
Vicat Softening Temperature	185 °F	85.0 °C	ASTM D1525 <sup>4</sup>

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance	92.0 %	92.0 %	ASTM D1003

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Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	350 to 450 °F	177 to 232 °C
Mold Temperature	50 to 120 °F	10 to 49 °C
Back Pressure	50.0 to 150 psi	0.345 to 1.03 MPa

**Injection Notes**

Injection Speed: 0.5 in/sec

**Notes**

- <sup>1</sup> Procedure A
- <sup>2</sup> 2.0 in/min (51 mm/min)
- <sup>3</sup> Method I (3 point load), 0.050 in/min (1.3 mm/min)
- <sup>4</sup> Loading 1 (10 N)

**Notes**

These are typical property values not to be construed as specification limits.