

Technical Data Sheet



Network Polymers Sbs 1003

Styrene Butadiene Styrene Block Copolymer
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• North America		
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 ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹ (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 ² (Yield)	3800 psi	26.2 MPa	ASTM D638
Flexural Modulus ³	260000 psi	1790 MPa	ASTM D790B
Flexural Strength ³	5400 psi	37.2 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Instrumented Dart Impact			ASTM D3763
73°F (23°C), 0.125 in (3.18 mm), Total Energy	354 in·lb	40.0 J	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness			ASTM D2240
Shore D, 10 sec, 0.125 in (3.18 mm), Injection Molded	63	63	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	144 °F	62.2 °C	
Vicat Softening Temperature	185 °F	85.0 °C	ASTM D1525 ⁴
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

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Notes

¹ Procedure A

² 2.0 in/min (51 mm/min)

³ Method I (3 point load), 0.050 in/min (1.3 mm/min)

⁴ Loading 1 (10 N)

Notes

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

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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