

Technical Data Sheet
Network Polymers
SBS 1000



Styrene Butadiene Styrene Block
 Copolymer
 Engineering Plastics

General	
Features	• Food Contact Acceptable
Agency Ratings	• FDA 21 CFR 177.1640
Appearance	• Clear/Transparent
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.03	1.03 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹ (200°C/5.0 kg)	11 g/10 min	11 g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3 in/in	0.20 to 0.60 %	ASTM D955

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Break)	3300 psi	22.8 MPa	ASTM D638
Flexural Modulus ³	250000 psi	1720 MPa	ASTM D790B
Flexural Strength ³	5400 psi	37.2 MPa	ASTM D790B

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (0.125 in (3.18 mm))	0.50 ft-lb/in	27 J/m	ASTM D256A

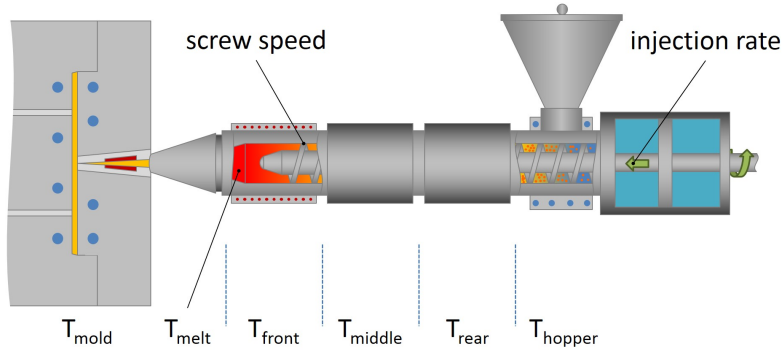
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	60 to 70	60 to 70	ASTM D2240

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	170 °F	76.7 °C	ASTM D648
Vicat Softening Temperature	195 °F	90.6 °C	ASTM D1525 ⁴

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Haze	< 4.00 %	< 4.00 %	ASTM D1003
Color, Yellowness Index ⁵	< 8.40	< 8.40	

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Injection	Nominal Value (English)	Nominal Value (SI)
Suggested Shot Size	40 to 80 %	40 to 80 %
Rear Temperature	340 °F	171 °C
Middle Temperature	360 °F	182 °C
Front Temperature	375 °F	191 °C
Nozzle Temperature	400 °F	204 °C
Processing (Melt) Temp	< 450 °F	< 232 °C
Mold Temperature	80 °F	27 °C
Injection Pressure	1100 psi	7.58 MPa
Back Pressure	90.0 psi	0.621 MPa
Screw Speed	200 rpm	200 rpm

Injection Notes

Injection Speed: 0.5 in/sec

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)
- ⁵ BAM 1015

Notes

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