

Technical Data Sheet
Network Polymers
HDPE 50 0863
High Density Polyethylene
Engineering Plastics



General

Features	• Food Contact Acceptable • High Density
Uses	• Non-specific Food Applications
Agency Ratings	• ASTM D1248, IV, Class A, Cat. 2 • ASTM D1248, IV, Class A, Cat. 3 • FDA 21 CFR 177.1520
Forms	• Pellets

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.963 g/cm ³	0.963 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) ¹ (190°C/2.16 kg)	8.5 g/10 min	8.5 g/10 min	ASTM D1238
Molding Shrinkage	1.5 to 4.0 %	1.5 to 4.0 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	4340 psi	29.9 MPa	ASTM D638
Tensile Elongation (Break)	1000 %	1000 %	ASTM D638
Flexural Modulus ²	200000 psi	1380 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength	48.0 ft·lb/in ²	101 kJ/m ²	ASTM D1822
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	-105 °F	-76.1 °C	ASTM D746
Vicat Softening Temperature	381 °F	194 °C	ASTM D1525

Notes

¹ Procedure A

² Method I (3 point load)

Notes

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