

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.