



DOW™ LDPE 959S

Low Density Polyethylene Resin

Overview

- Low Density Polyethylene (LDPE)
- Typical applications include lids
- Excellent clarity, flexibility, low warpage
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.1.
- Complies with Canadian HPFB No Objection (With Limitations)
- Consult the regulations for complete details.

DOW Polyethylene 959S Low Density Resin is a medium molecular weight distribution homopolymer. This resin has good processability over a wide range of molding conditions.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.923 g/cm ³	0.923 g/cm ³	ASTM D792
Base Density ¹	0.923 g/cm ³	0.923 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	55 g/10 min	55 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 100% Igepal, F50	< 1.00 hr	< 1.00 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	1600 psi	11.0 MPa	
Break	900 psi	6.21 MPa	
Tensile Elongation			ASTM D638
Yield	3.0 %	3.0 %	
Break	58 %	58 %	
Flexural Modulus - 2% Secant	48000 psi	331 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength ²	56.0 ft·lb/in ²	118 kJ/m ²	ASTM D1822
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	48	48	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	115 °F	46.1 °C	
Brittleness Temperature	-4.00 °F	-20.0 °C	ASTM D746
Vicat Softening Temperature	194 °F	90.0 °C	ASTM D1525
Melting Temperature (DSC)	230 °F	110 °C	Dow Method
Peak Crystallization Temperature (DSC)	212 °F	100 °C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

² Type S

