



DOW™ LDPE 692 LDPE HEALTH+™

The Dow Chemical Company - Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

DOW™ LDPE 692 HEALTH+™ is a Low Density Polyethylene barefoot resin designed for extrusion blow molding, injection blow molding, and blow-fill seal applications with good flexibility, moderate rigidity and good chemical resistance. It is also suitable for medical packaging films.

Main Characteristics:

- Good flexibility
- Good chemical resistance
- Good stiffness

Complies with:

- U.S. FDA 21CFR 177.1520 (c) 2.1
- USP XXIII Class VI
- Drug Master File Listing

Consult the regulations for complete details.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• DMF Unspecified Rating • FDA 21 CFR 177.1520(c) 2.1 • USP Class VI
Forms	• Pellets
Processing Method	• Extrusion Blow Molding • Injection Blow Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.924		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.75	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	2	mil	
Film Puncture Resistance (2.0 mil)	60.0	ft·lb/in ³	Internal Method
Film Toughness - MD (2.0 mil)	2380	ft·lb/in ³	ASTM D882
Film Toughness - TD (2.0 mil)	2550	ft·lb/in ³	ASTM D882
Tensile Strength - MD (Yield, 2.0 mil)	1830	psi	ASTM D882
Tensile Strength - TD (Yield, 2.0 mil)	1660	psi	ASTM D882
Tensile Strength - MD (Break, 2.0 mil)	4310	psi	ASTM D882
Tensile Strength - TD (Break, 2.0 mil)	4120	psi	ASTM D882
Tensile Elongation - MD (Break, 2.0 mil)	480	%	ASTM D882
Tensile Elongation - TD (Break, 2.0 mil)	680	%	ASTM D882
Dart Drop Impact (2.0 mil)	150	g	ASTM D1709A
Elmendorf Tear Strength - MD (2.0 mil)	280	g	ASTM D1922
Elmendorf Tear Strength - TD (2.0 mil)	350	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	208	°F	ASTM D1525
Melting Temperature (DSC)	234	°F	Internal Method

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Optical	Nominal Value	Unit	Test Method
Gloss (45°, 2.00 mil)	70		ASTM D2457
Haze (2.00 mil)	8.60	%	ASTM D1003

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	446	°F

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Screw Type: Single Flight Double Mix
- Die Gap: 40 mil (1.0 mm)
- Melt Temperature: 446 °F (230 °C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 88 rpm
- Frost Line Height: 23.5 in. (597 mm)

Notes

¹ Typical properties: these are not to be construed as specifications.