DOW™ LDPE 722

Low Density Polyethylene Resin

The Dow Chemical Company

Message:

DOW polyethylene 722 has a wide molecular weight distribution. This homopolymer has good impact strength and crack resistance, and it also has excellent flexibility. This resin has good processing performance and wide processing range.
low density polyethylene (LDPE)
Typical applications include capping materials
Good impact strength, good environmental stress cracking resistance, good ESCR performance, and excellent flexibility
Comply with the following regulations:
Canadian Health Products and Food Agency (HPFB) requirements: no objections (with restrictions)
EU, No 10/2011
U.S. Food and Drug Administration Regulation 21 CFR 177.1520 (c) 2.2
U.S. Food and Drug Administration Drug Master File (DMF)
Please check the regulations for complete details.

General Information	
Agency Ratings	DMF not rated FDA 21 CFR 177.1520(c) 2.2 HPFB (Canada) No Objection 2 Europe No 10/2011
Forms	Particle
Processing Method	Extrusion coating Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.918	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance [1] (50°C, 100% Igepal, F50)	< 1.00	hr	ASTM D1693
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness [2] (Shore D)	43		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3]			ASTM D638
Yield	8.27	MPa	ASTM D638
Fracture	9.65	MPa	ASTM D638
Tensile Elongation [4]			ASTM D638
Yield	4.0	%	ASTM D638
Fracture	500	%	ASTM D638
Flexural Modulus - 2% Secant [5]	234	MPa	ASTM D790B
Coefficient of Friction	0.60		ASTM D1894
Films	**Nominal Value**	**Unit**	**Test Method**

Seal Initiation Temperature [6]	105	°C	Internal method
Water Vapor Transmission Rate	0.67	g·mm/m²/atm/24 hr	ASTM F1249
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength	273	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [7] (0.45 MPa, Unannealed)	37.2	°C	ASTM D648
Brittleness Temperature [8]	-60.0	°C	ASTM D746
Vicat Softening Temperature	87.8	°C	ASTM D1525
Melting Temperature (DSC)	107	°C	Internal method
Peak Crystallization Temperature (DSC)	95.6	°C	Internal method
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Melt temperature-Recommended	316 - 332	°C	Internal method
Neck-in (321°C, 25.4 µm)	50.8	mm	Internal method
Maximum production line speed	7.6	m/sec	Internal method
Minimum coating thickness	7.6	µm	Internal method
Minimum coating weight	7.2	g/m²	Internal method

Fabrication Conditions For Extrusion Coating Film:
Screw Size: 3.5 in. (89 mm); 30:1 L/D
Screw Type: Single Flight with Maddock Mixer
Die Gap: 20 mil (0.508 mm)
Melt Temperature: 625°F (329°C)
Output: 250 lb/hr
Screw Speed: 90 rpm

NOTE	
1.	Molding and testing according to ASTM D 4976.
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6.	Temperature at which 1 lb/in (4.4 N/25.4 mm) heat seal strength is achieved.Heat Seal Strengths, Topware HT Tester 0.5 S dwell, 40 pis bar pressure, pull speed 250 mm/sec.
7.	Molding and testing according to ASTM D 4976.
8.	Molding and testing according to ASTM D 4976.

Recommended distributors for this material

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