DOW™ HDPE DMDA-8904 NT 7

High Density Polyethylene Resin

The Dow Chemical Company

Message:

Injection molding
For injection molded pails, industrial parts and other shipping containers
Excellent impact strength, stress crack resistance and processability
Very narrow molecular weight distribution
Complies with:
U.S. FDA 21 CFR 177.1520 (c)3.1a
Canadian HPFB No Objection
EU, No 10/2011
Consult the regulations for complete details.
DOW DMDA-8904 NT 7 High Density Polyethylene (HDPE) Resin is produced via UNIPOL™ Process Technology from Dow and is intended for use in injection molding applications such as pails, industrial parts and other shipping containers. This resin has been designed to provide excellent processability for molders and to meet the rigorous performance characteristics of applications requiring stackability, environmental stress crack resistance and impact strength. This resin is also suitable for cast film extrusion processing.

General Information	
UL YellowCard	E337483-100635873
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a HPFB (Canada) No Objection Europe No 10/2011
Forms	Particle
Processing Method	cast film Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.952	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	4.4	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance [1] (50°C, 100% Igepal, F50)	22.0	hr	ASTM D1693
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness [2] (Shore D)	59		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3]			ASTM D638
Yield	26.9	MPa	ASTM D638
Fracture	31.0	MPa	ASTM D638
Tensile Elongation [4]			ASTM D638
Yield	9.0	%	ASTM D638
Fracture	1200	%	ASTM D638
Flexural Modulus - 2% Secant [5]	1100	MPa	ASTM D790B

Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	25	µm	
Film Puncture Resistance (25 µm)	0.662	J/cm³	Internal method
secant modulus			ASTM D882
2% secant, MD: 25 µm, cast film	560	MPa	ASTM D882
2% secant, TD: 25 µm, cast film	632	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 25 µm, extruded film	24.2	MPa	ASTM D882
TD: Yield, 25 µm, extruded film	20.7	MPa	ASTM D882
MD: Broken, 25 µm, extruded film	45.7	MPa	ASTM D882
TD: Broken, 25 µm, extruded film	38.9	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Broken, 25 µm, extruded film	690	%	ASTM D882
TD: Broken, 25 µm, extruded film	940	%	ASTM D882
Dart Drop Impact (25 µm, Cast Film)	28	g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD: 25 µm, cast film	22	g	ASTM D1922
TD: 25 µm, cast film	160	g	ASTM D1922
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength	84.1	kJ/m²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load [6] (0.45 MPa, Unannealed)	72.2	°C	ASTM D648
Brittleness Temperature [7]	< -76.1	°C	ASTM D746
Vicat Softening Temperature	129	°C	ASTM D1525
Melting Temperature (DSC)	131	°C	Internal method
Peak Crystallization Temperature (DSC)	119	°C	Internal method
Optical	Nominal Value	Unit	Test Method
Gloss (45, 25.4 µm, cast film)	87		ASTM D2457
Haze (25.4 µm, Cast Film)	3.0	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Melt Temperature	274	°C	
Extrusion instructions			
铸造薄膜的制造条件: EGAN/Davis 标准 5 层铸造生产线 熔体温度:525° F (261°C) 冷却辊(主/次)温度:70 °F (21 °C) 生产线速度:400 fpm(123 米/分) 输出:356 磅/小时 模具宽度:36 英寸 (914 mm) 模具间隙:25 密尔 (.65 mm) 气隙:3 英寸 (76 mm)			
NOTE			
1.	Molding and testing according to ASTM D 4976.		

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Recommended distributors for this material

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