

DOW™ MDPE DNDA-1796 NT 7

Medium Density Polyethylene Resin

The Dow Chemical Company

Message:

High melt strength

Excellent low temperature toughness

Good environmental stress crack resistance

Excellent flex life

Industrial Standards Compliance:

ASTM D 3350: cell classification PE224340A

Complies with U.S. FDA 21 CFR 177.1520 (c) 3.1a.

Complies with Canadian HPFB No Objection (With Limitations)

Consult the regulations for complete details.

DOW DNDA-1796 NT 7 Medium Density Polyethylene Resin is produced using UNIPOL™ process technology. It is intended for use in flexible hose and tube applications. It also has utility in certain sheet applications and blow molding applications such as small, squeezable bottles. It exhibits high melt strength, excellent low temperature toughness, good stress cracking resistance, and outstanding flex life. It has a high molecular weight and a relatively broad molecular weight distribution that provides an excellent balance of performance properties and processability.

General Information			
Agency Ratings	ASTM D 3350 PE224340A		
	FDA 21 CFR 177.1520(c) 3.1a		
	HPFB (Canada) No Objection 2		
Forms	Particle		
Processing Method	Blow film		
	Profile extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.939	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.60	g/10 min	ASTM D1238
190°C/21.6 kg	40	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			
F0 ¹	> 2000	hr	ASTM D1693C
50°C, 100% Igepal, F50 ²	> 1500	hr	ASTM D1693
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw D ³	61		ASTM D2240
Shaw D ⁴	56		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield ⁵	20.0	MPa	ASTM D638
Yield ⁶	19.0	MPa	ASTM D638

Fracture ⁷	21.4	MPa	ASTM D638
Fracture ⁸	20.7	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield ⁹	4.0	%	ASTM D638
Fracture ¹⁰	700	%	ASTM D638
Fracture ¹¹	> 800	%	ASTM D638
Flexural Modulus			ASTM D790B
--	655	MPa	ASTM D790B
2% secant ¹²	600	MPa	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength	231	kJ/m ²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ¹³ (0.45 MPa, Unannealed)	55.0	°C	ASTM D648
Brittleness Temperature			
-- ¹⁴	< -95.0	°C	ASTM D746A
-- ¹⁵	< -76.1	°C	ASTM D746
Vicat Softening Temperature	120	°C	ASTM D1525
Melting Temperature (DSC)	126	°C	Internal method
Peak Crystallization Temperature (DSC)	115	°C	Internal method
Extrusion instructions			
软管和管子的制造条件: 螺杆类型:所有标准的商用挤出设备. 熔体温度范围:400-440 °F (205-225 °C)			
NOTE			
1.	Prepare the compression molded fitting according to ASTM D 1928 procedure C. Attributes will vary with molding conditions and aging time.		
2.	Carry out substrate molding and testing according to ASTM D 4976.		
3.	Carry out substrate molding and testing according to ASTM D 4976.		
4.	Prepare the compression molded fitting according to ASTM D 1928 procedure C. Attributes will vary with molding conditions and aging time.		
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9.	Carry out substrate molding and testing according to ASTM D 4976.
10.	Carry out substrate molding and testing according to ASTM D 4976.
11.	Prepare the compression molded fitting according to ASTM D 1928 procedure C. Attributes will vary with molding conditions and aging time.
12.	Carry out substrate molding and testing according to ASTM D 4976.
13.	Carry out substrate molding and testing according to ASTM D 4976.
14.	Prepare the compression molded fitting according to ASTM D 1928 procedure C. Attributes will vary with molding conditions and aging time.
15.	Carry out substrate molding and testing according to ASTM D 4976.

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