TUFLIN™ HS-7066 NT 7

Linear Low Density Polyethylene Resin

The Dow Chemical Company

Message:

Hexene Linear Low Density Resin
Good Strength and Stiffness
Complies with U.S. FDA 21 177.1520 (c) 3.2a
Consult the regulations for complete details.
TUFLIN™ HS-7066 NT 7 Linear Low Density Polyethylene Resin is a fractional melt, ethylene-hexene copolymer, linear low density (LLDPE) resin designed for good toughness and stiffness. This product is recommended for thin and thick gauge applications such as consumer trash bags and industrial heavy-duty shipping sacks that require strength and machinability.

General Information			
Agency Ratings	FDA 21 CFR 177.1520(c) 3.2a		
Forms	Particle		
Processing Method	Blow film		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.926	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.80	g/10 min	ASTM D1238
Films	**Nominal Value**	**Unit**	**Test Method**
Film Puncture Energy			Internal method
20 µm	2.37	J	Internal method
51 µm	5.42	J	Internal method
Film Puncture Force			Internal method
20 µm	40.0	N	Internal method
51 µm	80.1	N	Internal method
Film Puncture Resistance			Internal method
20 µm	14.2	J/cm³	Internal method
51 µm	13.2	J/cm³	Internal method
Film strength			ASTM D882
MD : 20 µm	300	J/cm³	ASTM D882
MD : 51 µm	348	J/cm³	ASTM D882
TD : 20 µm	321	J/cm³	ASTM D882
TD : 51 µm	353	J/cm³	ASTM D882
secant modulus			ASTM D882
2% secant, MD: 20 µm	276	MPa	ASTM D882
2% secant, MD: 51 µm	282	MPa	ASTM D882
2% secant, TD: 20 µm	333	MPa	ASTM D882
2% secant, TD: 51 µm	333	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 20 µm	16.3	MPa	ASTM D882

MD: Yield, 51 µm	14.8	MPa	ASTM D882
TD: Yield, 20 µm	19.7	MPa	ASTM D882
TD: Yield, 51 µm	16.0	MPa	ASTM D882
MD: Break, 20 µm	58.8	MPa	ASTM D882
MD: Fracture, 51 µm	52.9	MPa	ASTM D882
TD: Break, 20 µm	43.1	MPa	ASTM D882
TD: Fracture, 51 µm	46.0	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Break, 20 µm	600	%	ASTM D882
MD: Fracture, 51 µm	790	%	ASTM D882
TD: Break, 20 µm	730	%	ASTM D882
TD: Fracture, 51 µm	850	%	ASTM D882
Dart Drop Impact			
20 µm	58	g	ASTM D1709A
20 µm	< 100	g	ASTM D1709B
51 µm	190	g	ASTM D1709A
51 µm	< 100	g	ASTM D1709B
Elmendorf Tear Strength [1]			ASTM D1922
MD : 20 µm	180	g	ASTM D1922
MD : 51 µm	470	g	ASTM D1922
TD : 20 µm	650	g	ASTM D1922
TD : 51 µm	1100	g	ASTM D1922
Seal Initiation Temperature [2]			Internal method
20 µm	120	°C	Internal method
51 µm	130	°C	Internal method
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	113	°C	ASTM D1525
Melting Temperature (DSC)	125	°C	Internal method
Optical	**Nominal Value**	**Unit**	**Test Method**
Gloss			ASTM D2457
20°, 20.3 µm	66		ASTM D2457
20°, 50.8 µm	55		ASTM D2457
45°, 20.3 µm	56		ASTM D2457
45°, 50.8 µm	54		ASTM D2457
Haze			ASTM D1003
20.3 µm	9.0	%	ASTM D1003
50.8 µm	16	%	ASTM D1003
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Seal Strength [3]			Internal method
160°C, 20.3 µm	1300	g	Internal method
180°C, 50.8 µm	2200	g	Internal method
Extrusion	**Nominal Value**	**Unit**	

Melt Temperature	234	°C

Extrusion instructions
吹塑薄膜的制造条件: 螺杆尺寸:2.5 英寸 (63.5 mm) 30:1 L/D 螺杆类型:DSBII 模具间隙:70 密尔 (1.8 mm) 熔体温度:453 °F (234 °C) 输出:模具周长的 10 磅/小时/英寸 模具直径:6 英寸 放大比:2.5 比 1 螺杆速度:80 rpm 冷冻线高度:25 英寸 (635 mm)

NOTE	
1.	Method B
2.	Achieve a temperature of 1 psig (4.4 N/25.4mm) heat seal strength. Heat seal strength, Topwave HT tester 0.5 S holding pressure, 40 psi pressure, pulling speed 10 (inch/min).
3.	Heat seal strength, Topwave HT tester 0.5 S holding pressure, 40 psi pressure, pulling speed 10 (inch/min).

Recommended distributors for this material

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