



TUFLIN™ HS-7098D NT 7

The Dow Chemical Company - Linear Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

TUFLIN™ HS-7098D NT 7 is an ethylene-hexene copolymer, linear low density polyethylene (LLDPE) resin designed for cast and blown film applications such as trash bags, industrial can liners, and retail bags. Films extruded with HS-7098D NT 7 exhibit superb toughness, high tensile strength and elongation, excellent tear and puncture resistance, and are readily heat sealable.

Main Characteristics:

- Hexene Linear Low Density Resin
- High strength
- Excellent toughness

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.1a (with Restrictions). An additive present in this product limits use only in film form for food contact applications.

Application:

- Heavy Duty Industrial and Consumer Liners

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: 2500 ppm • Processing Aid: Yes • Slip: 1000 ppm
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.1a
Forms	• Pellets
Processing Method	• Blown Film

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.925		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Tensile Strength - MD (Break, 1.0 mil)	6500	psi	ASTM D882
Tensile Strength - TD (Break, 1.0 mil)	5000	psi	ASTM D882
Tensile Elongation - MD (Break, 1.0 mil)	500	%	ASTM D882
Tensile Elongation - TD (Break, 1.0 mil)	700	%	ASTM D882
Dart Drop Impact ² (1.0 mil)	200	g	ASTM D1709A
Elmendorf Tear Strength - MD ³ (1.0 mil)	310	g	ASTM D1922
Elmendorf Tear Strength - TD ³ (1.0 mil)	800	g	ASTM D1922
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 1.00 mil)	45		ASTM D523
Haze (1.00 mil)	16.0	%	ASTM D1003

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	448	°F

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Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm) 30:1 L/D
- Screw Type: DSBII
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 448 °F (231 °C)
- Output: 6 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 78 rpm
- Frost Line Height: 25 in. (635 mm)
- 1% secant modulus

Notes

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

² F50

³ Method B