



FLEXOMER™ ETS-9066 NT 7

The Dow Chemical Company - Very Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

FLEXOMER™ ETS -9066 NT 7 Very Low Density Polyethylene (VLDPE) Resin is intended for use in single or multi-layer blown-film constructions or thick sheets. Films extruded from ETS- 9066 NT 7 have a high tear strength, high impact strength, and high puncture resistance and are readily heat sealable. Addition of slip and antiblock agents should be considered for most applications.

- Excellent strength and toughness balance
- Flexible over wide temperature range
- Superior low temperature properties
- Broad sealing temperature range
- 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.
- Consult the regulations for complete details.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• North America	
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.1a		
Forms	• Pellets		
Processing Method	• Blow Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.907		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.50	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Film Puncture Energy	40.0	in-lb	Internal Method
Film Puncture Force	12.0	lbf	Internal Method
Film Puncture Resistance	360	ft-lb/in ³	Internal Method
Film Toughness - MD	570	ft-lb/in ³	ASTM D892
Film Toughness - TD	720	ft-lb/in ³	ASTM D882
Secant Modulus			ASTM D882
1% Secant, MD	18800	psi	
2% Secant, MD	16300	psi	
Secant Modulus			ASTM D882
1% Secant, TD	18700	psi	
2% Secant, TD	15900	psi	
Tensile Strength - MD (Yield)	1000	psi	ASTM D882
Tensile Strength - TD (Yield)	900	psi	ASTM D882
Tensile Strength - MD (Break)	4940	psi	ASTM D882
Tensile Strength - TD (Break)	3740	psi	ASTM D882
Tensile Elongation - MD (Break)	330	%	ASTM D882
Tensile Elongation - TD (Break)	560	%	ASTM D882
Dart Drop Impact	870	g	ASTM D1709B

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Films	Nominal Value	Unit	Test Method
Elmendorf Tear Strength - MD	270	g	ASTM D1922
Elmendorf Tear Strength - TD	440	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	190	°F	ASTM D1525
Melting Temperature (DSC)	210	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°)	48		ASTM D2457
Haze	11.0	%	ASTM D1003

Processing Information

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 (1.8mm)
- Melt Temperature: 416°F (213 °C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 59 rpm
- Frost Line Height: 30 in. (762 mm)

Notes

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