



XUS 599999.20

Experimental Polyethylene Resin

XUS 599999.20 Experimental Polyethylene Resin is an enhanced LLDPE ethylene-octene copolymer from Dow. This grade is a fully formulated sealant resin designed for demanding applications where hot tack strength is a key requirement.

Main Characteristics

- High Hot Tack strength
 - Broad Hot Tack window
 - Low Heat Seal Initiation Temperature
 - High Throughput Resin with excellent bubble stability
 - Complies with:
U.S. FDA FCN 424
Consult the regulations for complete details.
- Slip Additive: 750 ppm
Antiblock Additive: 1875 ppm
PPA: yes

Properties ⁽¹⁾		English	S.I.
Typical Physical		Test Method	
Melt Index, (I ₂) at 190°C/2.16 kg, g/10 min	ASTM D 1238	0.85	0.85
Density, g/cm ³	ASTM D 792	0.908	0.908
DSC Melting Point, °F (°C)	Dow Method	223	106
Film, 1.0 mil (25 µm)			
Puncture Resistance, ft-lbf/in ³ (J/cm ³)	Dow Method	253	20.9
Energy, in-lbf (J)		38	4.29
Force, lbf (N)		12.2	54.3
Dart Impact, g Method B	ASTM D 1709	1026	1026
Elmendorf Tear (Method B), g	MD	210	210
	CD	430	430
Tensile Yield, psi (MPa)	MD	1150	7.9
	CD	1130	7.8
Ultimate Tensile, psi (MPa)	MD	7100	49.0
	CD	5800	40.0
Ultimate Elongation, %	MD	450	450
	CD	600	600
Tensile Modulus, 2% Secant, psi (MPa)	MD	10,000	68.9
	CD	11,200	77.2
Gloss, 45°	ASTM D 2457	63	63
Haze, %	ASTM D 1003	7.9	7.9
VFFS Hot Tack Window ⁽²⁾ , °F (°C)		45 (205-250)	25 (96-121)

Fabrication Conditions For Blown Film:

- Screw Size: 3.5in. (88.9 mm); 30:1ratio L/D
- Screw Type: DSBII
- Die Gap: 70mil (1.8 mm)
- Melt Temperature: 433°F (223°C)
- Output: 11.9 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Frost Line Height: 52 in. (1321 mm)

- (1) These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.
- (2) 2 mil xoex film, 20/60/20 with MDPE core, sealant layer formulated with 10% LDPE and slip and AB. Tested on VFFS machinew with 4 lb fill weight, 0.25 second dwell time.

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