



Technical Data Sheet

XUS 59999.68 Experimental Polyethylene Resin

Description

XUS 59999.68 Experimental Polyethylene Resin is an enhanced ethylene-octene copolymer from Dow. It is fully formulated sealant resins designed for demanding applications where low heat seal initiation temperature and hot tack strength are key requirements.

Applications

- A high performance sealant for food and specialty packaging

Complies with

- EU, No. 10/2011
- U.S. FDA FCN 424

Consult the regulations for complete details.

Additive

- Slip: 1200 ppm
- Antiblock: 3300 ppm
- Processing aid: No

Properties¹

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Density	0.909	g/cm ³	0.909	g/cm ³	ASTM ² D792
Melt Index (190°C/2.16 kg)	1.20	g/10 min	1.20	g/10 min	ASTM D1238
Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Film Thickness — Tested	1.0	mil	25	µm	
Film Puncture Energy	34.0	in•lb	3.90	J	
Film Puncture Force	10.0	lbf	44.2	N	
Film Puncture Resistance	232	ft-lb/in ³	19.2	J/cm ³	Internal Method
Secant Modulus					ASTM D882
2% Secant, MD	15300	psi	106	MPa	
2% Secant, TD	16800	psi	116	MPa	
Tensile Strength					ASTM D882
MD: Yield	980	psi	6.8	MPa	
TD: Yield	920	psi	6.4	MPa	
MD: Break	6900	psi	48.1	MPa	
TD: Break	7300	psi	50.4	MPa	
Tensile Elongation					ASTM D882
MD: Break	640	%	640	%	
TD: Break	810	%	810	%	

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials



Properties (Cont.)

Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Dart Drop Impact	630	g	630	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD: Break	280	g	280	g	
TD: Break	420	g	420	g	
Thermal	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Melting Temperature (DSC)	253	°F	123	°C	ISO ³ 3146
Optical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Gloss	71		71		ASTM D2457
Haze	6.5	%	6.5	%	ASTM D1003

Extrusion Notes

Fabrication Conditions for Blown Film:

- Screw Size: 1 in; 25:1 L/D
- Screw Type: Single stage extrusion screw
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 433°F (223°C)
- Output: 9.0 lb/hr/in. of die circumference
- Die Diameter: 2 in.
- Blow-Up Ratio: 2.5:1
- Frost Line Height: 6 in.

