Technical Data Sheet

XUS 60030.02 Linear Low Density Polyethylene Resin

Description

New experimental PCR-rich resin for film applications that require improved homogeneity, consistency and toughness over other film-based PCR resin offerings.

XUS 60030.02 Linear Low Density Polyethylene Resin PCR-rich solution is designed with 70% recycled content for use in secondary and tertiary packaging and potential use in some non-food contact primary packaging applications.[1]

[1]This product is not approved for preparation of packaging components that will be in direct contact with food, beverages, animal feed, seeds for producing food or animal feed, or other materials that will be utilized to manufacture primary packaging components for these applications. Dow reserves the right to review applications utilizing post-consumer recyclable (PCR) materials. Customers are requested to complete a PCR Application Screen Form prior to sampling or sales. Please contact Dow representative for details.

Properties[1]

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[2]
Density	0.918	g/cm^3	0.918	g/cm^3	ASTM D792
Melt Index (190°C/2.16 kg)	1.7	g/10 min	1.7	g/10 min	ASTM D1238
Films					
Film Thickness - Tested	2.0	mil	51	µm	
Film Puncture Resistance	89.2	ft·lb/in^3	7.38	J/cm^3	Internal Method
Tensile Modulus					ASTM D882
2% Secant, MD	24000	psi	165	MPa	
2% Secant, TD	24800	psi	171	MPa	
Tensile Strength					ASTM D882
MD: Yield	1120	psi	7.74	MPa	
TD: Yield	1170	psi	8.03	MPa	
Dart Drop Impact[3]	350	g	350	g	ASTM D1709
Elmendorf Tear Strength					ASTM D1922
MD	810	g	810	g	
TD	1100	g	1100	g	
Mechanical					
Ultimate Elongation					ASTM D882
MD	570	%	570	%	
TD	610	%	610	%	
Ultimate Tensile Strength					ASTM D882
MD	3399	psi	23.4	MPa	
TD	3096	psi	21.3	MPa	

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

Properties (Cont.)

Thermal	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Melting Temperature (DSC)	250	°F	121	°C	Internal Method
Optical					
Gloss (45°)	47		47		ASTM D2457
Haze	28.6	%	28.6	%	ASTM D1003
Extrusion Notes					

Fabrication Conditions for Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Type: Maddoc Barrier Screw
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 410°F (210°C)
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-up Ratio: 2.5 to 1