



Technical Data Sheet

DOW™ LLDPE XHS-7033 NT 7 Experimental Linear Low Density Polyethylene Resin

Overview

DOW™ XHS -7033 NT 7 Linear Low Density Polyethylene Resin is an ethylene-butene copolymer which is supplied in pelleted form. This resin is formulated with an additive package that does not contain any intentionally added TNPP (TrisnonylphenylPhosphite). It is generally recommended for slot cast thin film applications requiring both clarity and toughness. It is excellent in coextruded, slot cast stretch wrap. This resin is also suitable for use in hose and tube applications.

Main Characteristics:

- High clarity
- High tensile strength
- High elongation
- Good puncture resistance

Complies with:

- U.S. FDA 21 CFR 177.1520(c) 3.2a
- EU, No 10/2011
- Canadian HPFB No Objection

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing aid: No

Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method ¹
Density	0.918	g/cm ³	0.918	g/cm ³	ASTM D792
Base Density ²	0.918	g/cm ³	0.918	g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238

1. ASTM: American Society for Testing and Materials
2. Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.



Properties (Cont.)

Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Strength ³					ASTM D638
Yield	1380	psi	9.51	MPa	
Break	1490	psi	10.3	MPa	
Tensile Elongation ³					ASTM D638
Yield	11	%	11	%	
Break	570	%	570	%	
Flexural Modulus - 2% Secant ³	32000	psi	221	MPa	ASTM D790B
Films					
Film Thickness – Tested	1		25	µm	
Tensile Strength					ASTM D882
MD : Break, 1.0 mil (25 µm), Cast Film	5000	psi	34.5	MPa	
TD : Break, 1.0 mil (25 µm), Cast Film	3600	psi	24.8	MPa	
Tensile Elongation					ASTM D882
MD : Break, 1.0 mil (25 µm), Cast Film	450	%	450	%	
TD : Break, 1.0 mil (25 µm), Cast Film	850	%	850	%	
Dart Drop Impact					ASTM D1709A
1.0 mil (25 µm), Cast Film	70	g	70	g	
Elmendorf Tear Strength					ASTM D1922
MD : 1.0 mil (25 µm), Cast Film	50	g	50	g	
TD : 1.0 mil (25 µm), Cast Film	400	g	400	g	
Thermal					
Melting Temperature (DSC)	257	°F	125	°C	Dow Method
Optical					
Gloss (45°, 1.00 mil (25.4 µm), Cast Film)	92		92		ASTM D2457
Haze (1.00 mil (25.4 µm), Cast Film)	2.50	%	2.50	%	ASTM D1003
Additional Information					
Film properties are typical of slot-cast film extruded at 520°F (270°C).					
Extrusion					
Melt Temperature	520	°F	271	°C	
Extrusion Notes					
Fabrication Conditions for Cast Film:					
<ul style="list-style-type: none"> Extrudable by conventional slot cast film extrusion equipment with only minor machine modifications necessary for optimum use. Melt Temperature: 520°F (270°C) 					

3. Plaque molded and tested in accordance with ASTM D4976.

