Technical Data Sheet

ELITE™ AT 6410 Enhanced Polyethylene Resin

Overview

ELITE™ AT 6410 Enhanced Polyethylene Resin is suitable for a wide variety of blown film applications with good processability, superior seal and physical properties.

Main Characteristics:

- Superior seal properties
- High strength and good optical properties
- Good processability

Complies with:

- U.S. FDA FCN 424

Consult the regulations for complete details.

Sustainability Attribute:

Circulibrium
Designing for circularity with Dow

Additive

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

Physical Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[1]
Density	0.912	g/cm³	0.912	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	0.85	g/10 min	0.85	g/10 min	ASTM D1238
Films					
Film Thickness - Tested	1	mil	25	µm	
Film Puncture Resistance	417	ft·lb/in³	34.5	J/cm³	Dow Method
Secant Modulus					ASTM D882
2% Secant, MD	17800	psi	123	MPa	
2% Secant, TD	18000	psi	124	MPa	

1. ASTM: American Society for Testing and Materials

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

Physical Properties (Cont.)

Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Strength					ASTM D882
MD : Yield	1190	psi	8.23	MPa	
TD : Yield	1190	psi	8.17	MPa	
MD : Break	6180	psi	42.6	MPa	
TD : Break	3770	psi	26.0	MPa	
Tensile Elongation					ASTM D882
MD : Break	420	%	420	%	
TD : Break	490	%	490	%	
Dart Drop Impact	1700	g	1700	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD	240	g	240	g	
TD	460	g	460	g	
Thermal					
Melting Temperature (DSC)	226	°F	108	°C	Dow Method
Optical					
Gloss (45°, 1.00 mil (25.4 µm))	42		42		ASTM D2457
Haze (1.00 mil (25.4 µm))	12.0	%	12.0	%	ASTM D1003
Extrusion Notes					

Fabrication Conditions for Blown Film:

- Monolayer Film (1.0 mil)
- Screw Size: 2.5 inch (63.5 mm) 30:1 L/D
- Screw Type: DSBII
- Die Gap: 90 mil
- Output: 10 lbs/hr./in. of die circumference
- Die Diameter: 8 in.
- Blow-up Ratio: 2.5 : 1