



ATTANE™ SL 4100G

Ultra Low Density Polyethylene Resin

Overview

ATTANE™ SL 4100G Ultra Low Density Polyethylene Resin is designed for the production of blown film requiring a combination of excellent optical properties, outstanding tear and impact strength, and very good sealability. The product also offers very good flex crack resistance.

Complies with:

- EU, No 10/2011
- U.S. FDA 21 CFR 176.170(c)
- U.S. FDA FCN 424

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density ¹	0.912 g/cm ³	0.912 g/cm ³	ASTM D792
Melt Index ¹ (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ISO 1133
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2 mil	40 µm	
Tensile Modulus			ISO 527-3
2% Secant, MD : 1.6 mil (40 µm)	17400 psi	120 MPa	
2% Secant, TD : 1.6 mil (40 µm)	19600 psi	135 MPa	
Tensile Stress			ISO 527-3
MD : Yield, 1.6 mil (40 µm)	943 psi	6.50 MPa	
TD : Yield, 1.6 mil (40 µm)	899 psi	6.20 MPa	
MD : Break, 1.6 mil (40 µm)	4500 psi	31.0 MPa	
TD : Break, 1.6 mil (40 µm)	4350 psi	30.0 MPa	
Tensile Elongation			ISO 527-3
MD : Break, 1.6 mil (40 µm)	640 %	640 %	
TD : Break, 1.6 mil (40 µm)	760 %	760 %	
Dart Drop Impact (1.6 mil (40 µm))	850 g	850 g	ISO 7765-1/B
Elmendorf Tear Strength			ASTM D1922
MD : 1.6 mil (40 µm)	690 g	690 g	
TD : 1.6 mil (40 µm)	850 g	850 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature ¹	198 °F	92.0 °C	ASTM D1525
Melting Temperature ¹	252 °F	122 °C	DSC
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (20°, 1.57 mil (40.0 µm))	75	75	ASTM D2457
Haze (1.57 mil (40.0 µm))	8.00 %	8.00 %	ISO 14782
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	374 to 464 °F	190 to 240 °C	
Extrusion Notes			

Fabrication Conditions for Blown Film Extrusion:

- Die Gap 1.6 to 2.5 mm
- Melt Temperature: 190 to 240°C (Ideal: 215-225°C)
- Blow-Up Ratio: 1.5 to 3.5
- Recommended Gauge Range: 10 to 80 µm

