



ATTANE™ SL 4102G

Ultra Low Density Polyethylene Resin

Overview

ATTANE™ SL 4102G Ultra Low-Density Linear Polyethylene Copolymer is an ethylene-octene copolymer. It is specifically designed for the production of blown film requiring a combination of good processability, outstanding sealing, hot tack and toughness, coupled with excellent optical properties.

Applications:

- Diapers, pads, wipes, garments
- Medical packaging
- Non-food and detergent pouches
- Fresh-cut produce packaging
- Frozen foods
- Display packaging
- Liquid foods
- Fresh & processed foods
- Industrial liners
- Misc. heavy duty films

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.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density ¹	0.905 g/cm ³	0.905 g/cm ³	ASTM D792
Melt Index (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	
Secant Modulus			ASTM D882
MD : 1.6 mil (40 µm)	13100 psi	90.0 MPa	
TD : 1.6 mil (40 µm)	13800 psi	95.0 MPa	
Tensile Stress			ISO 527-3
MD : Yield, 1.6 mil (40 µm)	827 psi	5.70 MPa	
TD : Yield, 1.6 mil (40 µm)	783 psi	5.40 MPa	
MD : Break, 1.6 mil (40 µm)	4790 psi	33.0 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)	670 %	670 %	
TD : Break, 1.6 mil (40 µm)	790 %	790 %	
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)	660 g	660 g	
TD : 1.6 mil (40 µm)	800 g	800 g	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness ¹ (Shore D)	40	40	DIN 53505
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature ¹	183 °F	84.0 °C	ASTM D1525
Melting Temperature	252 °F	122 °C	DSC
Peak Crystallization Temperature (DSC)	210 °F	99.0 °C	ISO 3146

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (20°, 1.57 mil (40.0 µm))	78	78	ASTM D2457
Haze (1.57 mil (40.0 µm))	7.00 %	7.00 %	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:

- Melt Temperature: 190 to 240°C (Ideal: 215-225°C)
- Blown-Up Ratio: 1.5:1 to 3.5:1
- Recommended Gauge Range: 10 to 80 µm.

Notes

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

¹ Compression moulded samples

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