



ATTANE™ 4203

Ultra Low Density Polyethylene Resin

Overview

- For packaging and food packaging applications
- Offers high pinhole resistance, excellent flexibility and abuse resistance
- Excellent sealing characteristics
- Offers toughness, seal properties, optical properties and processability

Complies with:

- U.S. FDA FCN 424
- U.S. FDA-DMF
- U.S. USP
- EU, No 10/2011
- CANADIAN HPFB NO OBJECTION (WITH LIMITATIONS)
- Japan Hygienic Olefin and Styrene Plastics Association

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.905 g/cm ³	0.905 g/cm ³	ASTM D792
Base Density ¹	0.905 g/cm ³	0.905 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1 mil	25 µm	
Film Puncture Energy	40.0 in·lb	4.52 J	Dow Method
Film Puncture Force	11.0 lbf	48.9 N	Dow Method
Film Puncture Resistance	300 ft·lb/in ³	24.8 J/cm ³	Dow Method
Film Toughness			ASTM D882
MD	550 ft·lb/in ³	45.5 J/cm ³	
TD	780 ft·lb/in ³	64.5 J/cm ³	
Secant Modulus			ASTM D882
1% Secant, MD	14300 psi	98.6 MPa	
2% Secant, MD	13000 psi	89.6 MPa	
1% Secant, TD	16400 psi	113 MPa	
2% Secant, TD	13600 psi	93.8 MPa	
Tensile Strength			ASTM D882
MD : Yield	900 psi	6.21 MPa	
TD : Yield	850 psi	5.86 MPa	
MD : Break	4700 psi	32.4 MPa	
TD : Break	4350 psi	30.0 MPa	
Tensile Elongation			ASTM D882
MD : Break	340 %	340 %	
TD : Break	570 %	570 %	
Dart Drop Impact	> 1100 g	> 1100 g	ASTM D1709B
Elmendorf Tear Strength			ASTM D1922
MD	370 g	370 g	
TD	520 g	520 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	183 °F	83.9 °C	ASTM D1525
Melting Temperature (DSC)	253 °F	123 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°)	39	39	ASTM D2457



Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Haze	14.0 %	14.0 %	ASTM D1003

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 3.5 in.
- Screw Type: DSB II
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 419°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5:1

