



# ATTANE™ 4606GC

## Ultra Low Density Polyethylene Resin

### Overview

ATTANE™ 4606GC Ultra Low Density Ethylene/Hexene Copolymer is a skin layer in cast film offers excellent low temperature hot tack properties combined with outstanding tear and impact strength. In stretch film applications, ATTANE™ 4606GC Ultra Low Density Ethylene/Hexene Copolymer Resin exhibits excellent stretchability as well as good physical and cling properties. ATTANE™ 4606GC Ultra Low Density Ethylene/Hexene Copolymer Resin can also be utilised in blown film coextrusion where it is combined with other resins having excellent bubble stability allowing ATTANE™ 4606GC Ultra Low Density Ethylene/Hexene Copolymer Resin to be used as a sealant in multilayer film structures.

Applications:

- Cling layer in cast stretch film
- Sealants in cast and blown films

Complies with:

- Europe Commission Regulation (EU), No 10/2011
- U.S. FDA FCN 741

Consult the regulations for complete details.

Additive	• Antiblock: No	• Slip: No	• Processing Aid: No
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.911 g/cm <sup>3</sup>	0.911 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.911 g/cm <sup>3</sup>	0.911 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	3.3 g/10 min	3.3 g/10 min	ISO 1133
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1 mil	23 µm	
Film Puncture Energy (0.91 mil (23 µm))	24.8 in·lb	2.80 J	ASTM D5748
Film Puncture Force (0.91 mil (23 µm))	7.87 lbf	35.0 N	ASTM D5748
Tensile Stress			ISO 527-3
MD : Yield, 0.91 mil (23 µm)	696 psi	4.80 MPa	
TD : Yield, 0.91 mil (23 µm)	653 psi	4.50 MPa	
MD : Break, 0.91 mil (23 µm)	4060 psi	28.0 MPa	
TD : Break, 0.91 mil (23 µm)	3630 psi	25.0 MPa	
Tensile Elongation			ISO 527-3
MD : Break, 0.91 mil (23 µm)	450 %	450 %	
TD : Break, 0.91 mil (23 µm)	600 %	600 %	
Dart Drop Impact (0.91 mil (23 µm))	180 g	180 g	ISO 7765-1/A
Elmendorf Tear Strength			ASTM D1922
MD : 0.91 mil (23 µm)	200 g	200 g	
TD : 0.91 mil (23 µm)	360 g	360 g	
Unstretched Cling	100 g	100 g	ASTM D4649
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	194 °F	90.0 °C	ISO 306/A
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 0.906 mil (23.0 µm))	92	92	ASTM D2457
Haze (0.906 mil (23.0 µm))	0.700 %	0.700 %	ASTM D1003

### Additional Information

Film properties measured on monolayer film produced on a Lab Collin line 15 m/min chill roll 25°C.

Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	374 to 500 °F	190 to 260 °C



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**Extrusion Notes**

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Fabrication Conditions For Cast Film Extrusion:

- Melt Temperature: 190 - 260 °C
- Recommended Gauge Range: 10 - 60 µm
- Haul-Off Speed: 150 - 300 m/min
- Chill Roll Temperature: 20 - 60 °C

**Notes**

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

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<sup>1</sup> 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/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

