

## Borealis FL5580 High Density Polyethylene

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE , High Density Polyethylene (HDPE), Film Grade

### Material Notes:

FL5580 is a high density polyethylene with an excellent combination of extrusion properties and moisture barrier properties. Applications:

FL5580 has been developed especially for applications like food packaging and moisture barrier. Information provided by Borealis AG

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Borealis-FL5580-High-Density-Polyethylene.php](http://www.lookpolymers.com/polymer_Borealis-FL5580-High-Density-Polyethylene.php)

Physical Properties	Metric	English	Comments
Density	0.958 g/cc	0.0346 lb/in <sup>3</sup>	ISO 1183
Water Vapor Transmission	4.10 g/m <sup>2</sup> /day @Temperature 38.0 °C	0.264 g/100 in <sup>2</sup> /day @Temperature 100 °F	90% humidity; ASTM F 1249
Oxygen Transmission Rate	2210 cc/m <sup>2</sup> /day @Temperature 23.0 °C	142 cc/100 in <sup>2</sup> /day @Temperature 73.4 °F	wet; ASTM D3985
Molecular Weight	130000 g/mol	130000 g/mol	distribution: 9 Mw/Mn; GPC
Melt Flow	1.2 g/10 min @Load 2.16 kg, Temperature 190 °C	1.2 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	31.0 MPa	4500 psi	MD; ISO 527-3
	35.0 MPa	5080 psi	TD; ISO 527-3
Film Elongation at Break, MD	600 %	600 %	ISO 527-3
Film Elongation at Break, TD	500 %	500 %	ISO 527-3
Tensile Modulus	0.760 GPa	110 ksi	MD; ASTM D882-A
	0.940 GPa	136 ksi	TD; ASTM D882-A
Puncture Energy	1.00 J	0.738 ft-lb	40N; ASTM D5748
Coefficient of Friction	0.27	0.27	Dynamic; ISO 8295
Dart Drop Test	50.0 g	0.110 lb	ISO 7765-1
Film Tensile Strength at Break, MD	48.0 MPa	6960 psi	ISO 527-3
Film Tensile Strength at Break, TD	22.0 MPa	3190 psi	ISO 527-3

Thermal Properties	Metric	English	Comments
Melting Point	132 °C	270 °F	ISO 11357-3
Vicat Softening Point	129 °C @Load 1.02 kg	264 °F @Load 2.25 lb	ISO 306

Optical Properties	Metric	English	Comments
Haze	56 %	56 %	ASTM D1003
Gloss	24 %	24 %	ASTM D2457

Processing Properties	Metric	English	Comments
Middle Barrel Temperature	190 °C	374 °F	cylinder temperature
Zone 1	160 °C	320 °F	
Zone 2	170 °C	338 °F	
Zone 3	180 °C	356 °F	
Zone 4	190 °C	374 °F	
Die Temperature	190 °C	374 °F	
Melt Temperature	>= 200 °C	>= 392 °F	

## Contact Songhan Plastic Technology Co.,Ltd.

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