

## Borealis Borcell™ LE1120 Low Density Polyethylene for Physically Foamed Cellular Insulation

Category: Polymer, Thermoplastic, Polyethylene (PE), LDPE, Low Density Polyethylene (LDPE), Wire/Cable Grade

## **Material Notes:**

Borcell LE1120 is a low density polyethylene intended for the insulation of coaxial and radio frequency communication cables.. It contains no additives and is designed to give the lowest possible attenuation by the selection of "electrically clean" feedstock. Strict cleanliness requirements are applied in production and materials handling. Borcell LE1120 is designed to be used as insulation for radio frequency cables having extra high demand on low attenuation at high frequencies. By blending weight a suitable stabilized HDPE component prior to the extrusion, in an optimum ratio for each insulation thickness, the lowest possible attenuation can be achieved. A small amount of HE1102 is recommended as nucleating agent. Using optimized-processing conditions an expansion above 80% can be expected. Information provided by the Manufacturer.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Borealis-Borcell-LE1120-Low-Density-Polyethylene-for-Physically-Foamed-Cellular-Insulation.php

Physical Properties	Metric	English	Comments
Density	0.924 g/cc	0.0334 lb/in³	ISO 1183
Melt Flow	5.0 g/10 min	5.0 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	45	45	ISO 868
Tensile Strength, Yield	12.20 MPa	1769 psi	ISO 527-2
Elongation at Break	500 %	500 %	ASTM D638

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.28	2.28	Borealis Test
	@Frequency 1.80e+9 Hz	@Frequency 1.80e+9 Hz	
	2.29	2.29	Borealis Test
	@Frequency 3.90e+9 Hz	@Frequency 3.90e+9 Hz	
	2.3	2.3	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dissipation Factor	0.000040	0.000040	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	



Electrical Properties	Metric 5	English	Comments
	@Frequency 1.80e+9 Hz	@Frequency 1.80e+9 Hz	Borealis Test
	0.00017	0.00017	Borealis Test
	@Frequency 3.90e+9 Hz	@Frequency 3.90e+9 Hz	

Processing Properties	Metric	English	Comments
Middle Barrel Temperature	>= 180 °C	>= 356 °F	
Front Barrel Temperature	>= 150 °C	>= 302 °F	
Die Temperature	>= 185 °C	>= 365 °F	
Head Temperature	>= 185 °C	>= 365 °F	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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