

Low Density Polyethylene BC818

Description:

BC818 is a low density polyethylene indicated for several applications. In the coating process it presents very good optical properties, low neck-in, good film stability, and good adhesion on porous substrate. In the injection molding process it gives excellent flexibility.

Additives:

None.

Process:

Coating process, Injection Molding and Masterbatches.

Applications:

Extrusion coating; injection of general parts and carrier for masterbatches.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190°C/2.160Kg)	D 1238	g/10 min	8.3
Density	D 1505	g/cm ³	0.918

Properties:

Blow film Properties^a

	ASTM Method	Units	Values
Tensile Strength at Break (MD/TD)	D 882	MPa	25/20
Elongation at Break (MD/TD)	D 882	%	380/870
Flexural Modulus – 1% Secant	D 882	MPa	70
Dart Drop Impact	D 1709	g/F50	70
Elmendorf Tear Strength (MD/TD)	D 1922	gF	ND ^b /56
Haze	D 1003	%	8
Gloss - Angle 60°	D 2457	%	76

(a) LDPE: 70 µm thick film, obtained from a 40 mm extruder, with blow up ratio of 2.2:1, die gap 1.8 mm (MD = Machine Direction and TD = Transversal Direction).

(b) ND: Not Determined



Typical Properties:

Plaque Properties

	ASTM Method	Units	Values
Tensile Strength at Yield ^c	D 638	MPa	9
Tensile Strength at Break ^c	D 638	MPa	12
Flexural Modulus – 1% Secant ^d	D 790	MPa	200
Shore D Hardness ^e	D 2240	-	49
Notched Izod Impact Strength @23°C ^d	D 256	J/m	NB
Vicat Softening Temperature @10N ^d	D 1525	°C	86
Deflection Temperature @0.455 MPa ^d	D 648	°C	41

NB = No Break. Test specimens obtained by compression mold according to ASTM D 4703. Plaque Thickness: c) 2mm. d) 3mm. e) 6mm

Recommended process conditions:

Extrusion coating

- Extruder type:

Screw W/D ratio 20:1

Compression ratio, 3 to 4:1

- Temperature profile on horizontal extruder:

Barrel, from 150 to 340°C

Final Remarks:

1. This resin meets the requirements for olefin polymers as defined in 21 CFR, section 177.1520 issued by FDA – *Food and Drugs Administration*. The additives present are covered in appropriate regulation by FDA.
2. These information reflect typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
3. In some applications, Braskem has developed *tailor-made* resins to reach specific requirements.
4. In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 009002-88-4
6. The mentioned values in this report can be changed at any moment without Braskem previous communication.
7. Braskem does not recommend this grade for packages, parts or any kind of product manufacture that will be used for storage or contact with solution that will have internal contact with human body.
8. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.