

## 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.

### Applications:

Masterbatches, Caps, Bungs, Extrusion coating, Flexible injection molded articles

### Processes:

Injection molding, General extrusion.

### Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	D 1238	g/10 min	8.3
Density	D 792	g/cm <sup>3</sup>	0.918

### Typical Properties - Plaque<sup>1</sup>:

Plaque Properties

Feature	Method	Units	Values
Tensile Strength at Yield (a)	D 638	MPa	9
Tensile Strength at Break (a)	D 638	MPa	12
Flexural Modulus - 2% Secant (b)	D 790	MPa	200
Hardness (c)	D 2240	-	49
Izod Impact Strength (b)	D 256	J/m	NB*
Deflection Temperature under Load at 0.455 MPa (b)	D 648	°C	86
Vicat Softening Temperature at 10 N (b)	D 1525	°C	41

<sup>1</sup> Test specimens from compression molded plaque according to ASTM D4703. Plaque Thickness: a) 2mm. b) 3mm c) 6mm. NB = No break.

### Typical Properties - Films:

Blow film Properties (a)

Feature	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 (MD/TD)	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: 25 µm thick film, obtained from a 75 mm extruder, with blow up ratio of 2:1, die gap 1 mm and Die rate 1,75 kg/h.cm (MD = Machine Direction and TD = Transversal Direction). (b) ND: Not Determined. (c) 25 µm thick film, temperature: 38° C, 100% RH.

### Final Remarks

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