

Low Density Polyethylene SPB681

Description:

SPB681 is a low density polyethylene produced under high pressure technology. Films obtained with this product show excellent 'draw down', good sealability, and low gel content. Additives free.

The minimum biobased content of this grade is 95%, determined according to ASTM D6866.

Applications:

LLDPE and HDPE blends.

Flexible containers for cosmetics and pharmaceutical applications (complies with USP 37).

Process:

Blown and Cast Film Extrusion. Injection molding.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/2.160)	D 1238	g/10 min	3.8
Density	D 1505	g/cm ³	0.922

Properties:

Blow Film Properties^a

	ASTM Methods	Units	Values
Ultimate Strength (MD/TD)	D 882	MPa	30/20
Elongation at Break (MD/TD)	D 882	%	370/1070
Dart Drop Impact	D 1709	g/F50	60
Elmendorf Tear Strength (MD/TD)	D 1922	gF	ND ^b /100
Haze	D 1003	%	4
Gloss - Angle 60°	D 2457	%	120

(a) Obtained in 75mm extruder, blow up ratio 2:1, die gap 1.0mm and 38µm thickness. (MD: Machine direction; TD: Transversal direction).

(b) ND: Not Determined.

Recommended Processing Conditions:

Blown Film Extrusion

- Equipment:
 - Screw - L/D relation.....16 to 30:1
 - Compression rate.....3 to 4:1
 - Screen package(Mesh).....40/60/40
- Temperature profile:1st zone.....110 °C
 - From the screw to the die.....140 °C
 - Die.....150 °C
- Blow up ratio:.....from 2 to 3:1
- Frostline height.....at most equivalent to the bubble diameter

Cast Film Extrusion

- Equipment type:
 - Screw - L/D relation.....at least 20:1
 - Screw.....from 180 to 250°C
 - Die.....from 250 to 290°C
- Chill Roll.....40°C

Injection Molding

- Temperature profile.....180 to 220°C
- Mold temperature.....5 to 25°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 Drug Administration in force on the date of publication of this specification. 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. The content of this Data Sheet replaces previous revisions published for this product.
9. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.