

Polypropylene Symbios 4102

Sub-group:

Terpolymer

Description:

Braskem Symbios 4102 is a medium melt flow rate terpolymer, designed for use as a heat sealing layer on bioriented films (BOPP), with heat seal temperature below 120°C on treated face. This product does not have slip and anti-blocking agents so it is indicated for customized formularization. This product is appropriate for metalizing processes.

Applications:

Coextrusion of bioriented and conventional film; heat sealable bioriented and conventional film; with a medium temperature of sealing and modifier of properties of conventional film. Also suitable for use in the lamination process.

Processing:

Bioriented Film (BOPP)

Film Coextrusion

Control Properties:

	ASTM Method	Units	Values
Melt Index (230°C/2,16 kg)	D 1238	g/10 min	5.5

Typical Properties^a:

	ASTM Method	Units	Values
Density	D 792	g/cm ³	0.902
Flexural Modulus	D 790	MPa	700
Tensile strength at yield	D 638	MPa	25
Elongation at yield	D 638	%	13
Rockwell Hardness (R Scale)	D 785	-	73
Notched Izod impact strength at 23°C	D 256	J/m	55
Notched Izod impact strength at -20°C	D 256	J/m	20
Heat deflection temperature at 1,820 MPa	D 648	°C	48
Heat deflection temperature at 0,455 MPa	D 648	°C	74
Vicat softening temperature at 10 N	D 1525	°C	121

a) Tests made in injection molded specimens according to ASTM D 4101.

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. The information presented in this Data Sheet reflects 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: 25895-47-0.
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.

Film Properties^b:

	ASTM Method	Units	Values
Secant Modulus 1% (MD/TD)	D 882	MPa	395/395
Tensile Strength at Yield (MD/TD)	D 882	MPa	18/16
Elongation at Yield (MD/TD)	D 882	%	16/13
Haze	D 1003	%	0.4
Gloss 45°	D 2457	-	96
Sealing Initial Temperature	Braskem Method	°C	99

b) 30  thickness film, processed in a 50 mm screw diameter extruder with blow up ratio of 1,3:1 (MD=Machine Direction and TD=Transversal Direction)

Final Remarks:

8. 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.
9. The information presented in this Data Sheet reflects 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.
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13. The mentioned values in this report can be changed at any moment without Braskem previous communication.
14. 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.
15. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.

