

Technical Data Sheet

SKYPET® BR8040



SKYPET

Product description

SKYPET® BR is a semi-crystalline Copolyester grade with excellent transparency, chemical resistance, and processability. Due to its slower crystallization rate compared to a regular PET, BR is suited for making thicker products for variety of applications through injection, stretch blow molding, and sheet extrusion processing. SKYPET® BR does not contain Bisphenol derivatives (BPA, etc.) and Phthalate-based plasticizer components regulated by the EU RoHS regulations. It also meets the requirements for food contact materials in Korea, the US, Europe, China, and Japan. For further details, please refer to SK Chemicals' technical documents.

Applications

- 5-gallon mineral water bottles
- Containers for cosmetics :
- Sheet (outer packing and wrapping materials) : excellent thermoforming, enabling deep draw
- Thickness of thermoforming : 5 or 6mm
- Returnable bottles

Key Attributes

- Not easily crystallized compared to SKYPET BB and SKYPET BL
- More easily applicable when forming thick materials compared to SKYPET BB and SKYPET BL
- Transparency is ensured
- Requires lower temperature for formation than SKYPET BB and SKYPET BL
- Minimal occurrence of byproducts, such as acetaldehyde

Notes

The data listed here is preliminary data sheet of product. Therefore this sheet should not be used to establish specification limits or used alone as a basis for design. This information is not intended as a warranty of any kind. Customers must make their own representative test and assume all risks of use, whether used alone or in combination with other products. SK Chemicals assumes no obligation or liability of any advice furnished by it or results obtained with respect to these products. All warranties of merchantability for a particular purpose or use are excluded and disclaimed.

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Typical properties for

SKYPET® BR8040

ASTM Method

Product Information

Property	Test Method	Unit	Result
Specific Gravity	ASTM D792	-	1.33
Mold Shrinkage	ASTM D955	%	0.3 ~ 0.5
Rockwell Hardness	ASTM D785	R-scale	116
Tensile Strength @ Yield	ASTM D638	Kgf/cm2	520
Tensile Strength @ Break	ASTM D638	Kgf/cm2	340
Elongation @ Yield	ASTM D638	%	4.5
Elongation @ Break	ASTM D638	%	340
Flexural Strength	ASTM D790	Kgf/cm2	780
Flexural Modulus	ASTM D790	Kgf/cm2	22,770
Izod Impact Strength Notched @ 23°C	ASTM D256	J/m	66
Heat Distortion Temperature @ 0.455 MPa / @ 1.820 MPa	ASTM D648	°C	69 /-
Haze	ASTM D1003	%	< 1.0
Transmittance	ASTM D1003	%	89

Headquarter / R&D center

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Ver.1, ' .0 . 0

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Typical properties for

SKYPET® BR8040

ISO
Method

Product Information

Property	Test Method	Unit	Result
Specific Gravity	ASTM D792	-	1.33
Mold Shrinkage	ASTM D955	%	0.3 ~ 0.5
Rockwell Hardness	ASTM D785	R-scale	116
Tensile Strength @ Yield	ISO 527	MPa	55
Tensile Strength @ Break	ISO 527	MPa	26
Elongation @ Yield	ISO 527	%	4.1
Elongation @ Break	ISO 527	%	240
Flexural Strength	ISO 178	MPa	71
Flexural Modulus	ISO 178	MPa	2,100
Izod Impact Strength Notched @ 23°C	ISO 180	KJ/m2	5.4
Heat Distortion Temperature @ 0.455 MPa / @ 1.820 MPa	ISO 75	°C	72/ 63
Haze	ASTM D1003	%	< 1.0
Transmittance	ASTM D1003	%	89

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