

# SKYPET® BR8040

**SKY**PET

## 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



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<br>Notched @ 23°C                   | ASTM D256   | J/m     | 66        |
| Heat Distortion Temperature<br>@ 0.455 MPa / @ 1.820 MPa | ASTM D648   | °C      | 69 /-     |
| Haze                                                     | ASTM D1003  | %       | < 1.0     |
| Transmittance                                            | ASTM D1003  | %       | 89        |



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<br>Notched @ 23°C                   | ISO 180     | KJ/m2   | 5.4       |
| Heat Distortion Temperature<br>@ 0.455 MPa / @ 1.820 MPa | ISO 75      | °C      | 72/ 63    |
| Haze                                                     | ASTM D1003  | %       | < 1.0     |
| Transmittance                                            | ASTM D1003  | %       | 89        |

