

SKYGREEN® PN100

SK Chemicals - Polyethylene Terephthalate Glycol Comonomer

General Information

Product Description

Available in 4 unique grades, SKYGREEN®'s outstanding features make it an idea choice for a variety of applications. SKYGREEN® PN series offers combination of great clarity and flowability that makes it suitable for injection molding intricate designs with small and thin parts. Among other SKYGREEN® grades, PN100 has outstanding flowability. SKYGREEN® PN 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.

Applications

- Cosmetic Packaging
- Skin Care Packaging (Bottles, Jars)
- Color Cosmetics Packaging
- Consumer Housewares
- Home Appliances
- Food and Beverage Packaging
- Stationery
- Others

Key Attributes

- Clarity
- Chemical Resistance
- Flowability

General

| | | | |
|-------------------|---|---|---|
| Features | <ul style="list-style-type: none"> • BPA Free • Chemical Resistant | <ul style="list-style-type: none"> • Food Contact Acceptable • High Clarity | <ul style="list-style-type: none"> • High Flow |
| Uses | <ul style="list-style-type: none"> • Appliances • Beverage Packaging • Bottles | <ul style="list-style-type: none"> • Cosmetic Packaging • Food Packaging • Household Goods | <ul style="list-style-type: none"> • Stationary Supplies |
| Appearance | <ul style="list-style-type: none"> • Clear/Transparent | | |
| Forms | <ul style="list-style-type: none"> • Pellets | | |
| Processing Method | <ul style="list-style-type: none"> • Injection Molding | | |

Properties¹

| Physical | Nominal Value | Unit | Test Method |
|----------------------------|------------------|-------|-------------|
| Density / Specific Gravity | 1.27 | | ASTM D792 |
| Molding Shrinkage - Flow | 2.0E-3 to 5.0E-3 | in/in | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield) | 6680 | psi | ASTM D638 |
| Tensile Stress (Yield) | 7110 | psi | ISO 527-2 |
| Tensile Strength (Break) | 6680 | psi | ASTM D638 |
| Tensile Stress (Break) | 3340 | psi | ISO 527-2 |
| Tensile Elongation (Yield) | 4.5 | % | ASTM D638 |
| Tensile Strain (Yield) | 4.1 | % | ISO 527-2 |
| Tensile Elongation (Break) | 120 | % | ASTM D638 |
| Tensile Strain (Break) | 40 | % | ISO 527-2 |
| Flexural Modulus | 275000 | psi | ASTM D790 |

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| Mechanical | Nominal Value | Unit | Test Method |
|--|----------------------|-----------------------|--------------------|
| Flexural Modulus | 274000 | psi | ISO 178 |
| Flexural Strength | 10200 | psi | ASTM D790 |
| Flexural Stress | 9720 | psi | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (73°F) | 2.0 | ft-lb/in | ASTM D256 |
| Notched Izod Impact Strength (73°F) | 3.3 | ft-lb/in ² | ISO 180 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 105 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 158 | °F | ASTM D648 |
| Deflection Temperature Under Load (66 psi, Unannealed) | 162 | °F | ISO 75-2/B |
| Deflection Temperature Under Load 264 psi, Unannealed | 144 | °F | ASTM D648 |
| Deflection Temperature Under Load 264 psi, Unannealed | 144 | °F | ISO 75-2/A |
| Optical | Nominal Value | Unit | Test Method |
| Light Transmittance | 90.0 | % | ASTM D1003 |
| Haze | < 1.00 | % | ASTM D1003 |