

Technical Data Sheet

Estar™ GN119 Copolyester

Applications

- Color cosmetics packaging
- Packaging components non food contact
- Skin care packaging

Product Description

Estar™ GN119 Copolyester is a low-I.V. PETG, for sale only in Asia as a high-flow formulation.

This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.

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Typical Properties

Property ^a	Test Method ^b	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.27
Mold Shrinkage	D 955	0.002-0.005 mm/mm (0.002-0.005 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	48 MPa (7000 psi)
Tensile Stress @ Break	D 638	24 MPa (3500 psi)
Elongation @ Yield	D 638	4 %
Elongation @ Break	D 638	75 %
Flexural Modulus	D 790	1900 MPa (2.76 x 10 ⁵ psi)
Flexural Strength	D 790	66 MPa (9600 psi)
Rockwell Hardness, R Scale	D 785	107
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	84 J/m (1.5 ft·lbf/in.)
@ -40°C (-40°F)	D 256	46 J/m (0.8 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C (73°F)	D 3763	35 J (26 ft·lbf)
@ -40°C (-40°F)	D 3763	44 J (32 ft·lbf)
Optical Properties		
Haze	D 1003	0.4 %
Total Transmittance	D 1003	91 %
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	68 °C (154 °F)
@ 1.82 MPa (264 psi)	D 648	60 °C (140 °F)

Typical Processing Conditions	
Drying Temperature	71 °C (160 °F)
Drying Time	6 hrs
Processing Melt Temperature	249-271 °C (480-520 °F)
Mold Temperature	16-38 °C (60-100 °F)

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

Comments

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform to the values given.

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