



Technical Data Sheet

Eastar™ Copolyester GN001 Natural

Applications

- Building materials
- Closures-fragrance pkg
- Color cosmetics packaging
- Compounders
- Condiments/dressings/sauces packaging
- Consumer housewares-NFC
- Fragrance packaging
- Jams/fruit sauces packaging
- Large appliances non-food contact
- Multi-layer film food contact
- Multi-layer film non food contact
- Packaging component films
- Packaging components non food contact
- Pens/stationary
- Personal care & cosmetics packaging
- Personal care bottles
- Personal care packaging
- Photographic imaging film
- Profiles
- Protective & performance film
- Shrink film food contact
- Shrink film non food contact
- Small appliances non-food contact
- Strapping
- Tools
- Water/sport bottles

Key Attributes

- Easy primary & secondary operations
- Excellent clarity
- Excellent toughness
- Gamma, ebeam, ETO sterilization stable

Product Description

Eastar™ copolyester GN001 is a clear, amorphous material. Because of its clarity, toughness and good melt strength at processing temperatures, it is useful in a variety of processing techniques. Eastar™ copolyester GN001 may be colored using color concentrates, dry colors or liquid colorants.

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	50 MPa (7300 psi)
Tensile Stress @ Break	D 638	28 MPa (4100 psi)
Elongation @ Break	D 638	130 %
Flexural Modulus	D 790	2100 MPa (3.0 x 10 ⁵ psi)
Flexural Yield Strength	D 790	70 MPa (10200 psi)
Rockwell Hardness, R Scale	D 785	106
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	101 J/m (1.9 ft·lbf/in.)
@ -40°C (-40°F)	D 256	37 J/m (0.7 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	33 J (24 ft·lbf)
@ -40°C (-40°F)	D 3763	50 J (37 ft·lbf)

Thermal Properties

Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	70 °C (158 °F)
@ 1.82 MPa (264 psi)	D 648	64 °C (147 °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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