

Product Data Sheet

Eastar™ Copolyester DN001HF

Application/Uses

- Displays
- Personal Care and Cosmetics

Product Description

Eastar™ Copolyester DN001HF has excellent flow characteristics while maintaining superior mechanical properties. It is easy to process and can fill intricate tools. Its most outstanding features are clarity, toughness and chemical resistance.

This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.

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Typical Properties

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.23
Mold Shrinkage	D 955	0.003 mm/mm (0.003 in./in.)
Water Absorption, 24 h immersion	D 570	0.15%
Mechanical Properties		
Tensile Stress @ Yield	D 638	47 MPa (6800 psi)
Tensile Stress @ Break	D 638	38 MPa (5600 psi)
Elongation @ Yield	D 638	5%
Elongation @ Break	D 638	260%
Flexural Yield Strength	D 790	65 MPa (9450 psi)
Flexural Modulus	D 790	1900 MPa (2.7 x 10 ⁵ psi)
Rockwell Hardness, R Scale	D 785	104
Izod Impact Strength, Notched		

@ 23°C (73°F)	D 256	NB
@ -40°C (-40°F)	D 256	69 J/m (1.3 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	47 J (35 ft·lbf)
@ -40°C (-40°F)	D 3763	46 J (34 ft·lbf)

Thermal Properties

Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	70°C (157°F)
@ 1.82 MPa (264 psi)	D 648	67°C (152°F)
Vicat Softening Temperature @ 1 kg load	D 1525	84°C (182°F)

Optical Properties

Total Transmittance	D 1003	90%
Haze	D 1003	1%

Typical Processing Conditions

Drying Temperature	71°C (160°F)
Drying Time	6 hrs
Processing Melt Temperature	250-270°C (480-520°F)
Mold Temperature	15-30°C (60-80°F)

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

^b Unless noted otherwise, the test method is ASTM.

^c Units 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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