EASTMAN

Technical Data Sheet

Eastar™ Copolyester DN001HF

Applications

- Displays/in-store fixtures

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®.
The GREENGUARD INDOOR AIR QUALITY CERTIFIED® Mark is a registered certification mark used under license through the GREENGUARD Environmental Institute (GEI). GEI is an industry-independent, non-profit organization that oversees the GREENGUARD Certification Program. The GREENGUARD Certification Program is an industry independent, third-party testing program for low-emitting products and materials for indoor environments. For more information about GEI and to obtain printable certificates for Eastman™ Copolyesters, visit . Choose Eastman Chemical Company under the Manufacturer category and click search to display a list of our products.

Typical Properties

Property[a]	Test Method[b]	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)
Optical Properties		
Total Transmittance	D 1003	90 %
Haze	D 1003	1 %
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)
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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