EASTMAN

Technical Data Sheet

Eastar™ Copolyester DN114 Natural

Applications

- Consumer housewares-nfc
- Equipment & machinery
- Lighting

Product Description

Eastar™ copolyesters are brilliantly clear polymers that have excellent impact strength, chemical resistance, dimensional stability, and low shrinkage. DN114 contains an ultraviolet light inhibitor and a mold release.

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		
Specific Gravity	D 792	1.23
Mold Shrinkage Parallel to Flow, 3.2-mm (0.125-in.) thickness	D 955	0.002-0.005 mm/mm (0.002-0.005 in./in.)
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)
Mechanical Properties		
Tensile Strength @ Break	D 638	52 MPa (7600 psi)
Tensile Strength @ Yield	D 638	45 MPa (6500 psi)
Elongation @ Break	D 638	325 %
Elongation @ Yield	D 638	5 %
Flexural Strength	D 790	66 MPa (9600 psi)
Flexural Modulus	D 790	1800 MPa (2.6 x 10^5 psi)
Rockwell Hardness, R Scale	D 785	106
Izod Impact Strength, Notched @ 23°C (73°F)	D 256	NB
Impact Strength, Unnotched @ 23°C (73°F)	D 4812	NB
Impact Resistance (Puncture), Energy @ Max. Load 3.2-mm (0.125-in.) Thick Plaques @ 23°C (73°F)	D 3763	45 J (33 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	72 °C (162 °F)
@ 1.82 MPa (264 psi)	D 648	64 °C (147 °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 exactly to the values given.

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