

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®.

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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-	D 955	0.002-0.005 mm/mm (0.002-0.005
in.) thickness		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), Energ	y @ Max. Load	
3.2-mm (0.125-in.) Thick	D 3763	45 J (33 ft·lbf)
Plaques @ 23°C (73°F)		
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)

^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 exactly to the values given.

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