

Product Data Sheet

Drystar™ 0831 Copolyester

Application/Uses

- Appliances
- Consumer electronics
- Personal Care and Cosmetics
- Stationery supplies

Key Attributes

- High clarity and transparency
- High flow copolyester
- Tough

Product Description

Drystar™ 0831 Copolyester is a high flow product and contains a mold release. Other outstanding features of Drystar™ 0831 are easily maintained such as excellent appearance and clarity, good physical properties, chemical resistance, and easy processing. Drystar™ 0831 is for sale only in Asia as a high-flow formulation.

Typical Properties (Preliminary)

Property ^a	Test ^b Method	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	48 MPa (7000 psi)
Tensile Stress @ Break	D 638	24 MPa (3500 psi)
Elongation @ Yield	D 638	4%
Elongation @ Break	D 638	75%
Flexural Modulus	D 790	1900 MPa (2.76 x 10 ⁵ psi)
Flexural Strength	D 790	66 MPa (9600 psi)
Rockwell Hardness, R Scale	D 785	107
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	84 J/m (1.5 ft·lbf/in.)
@ -40°C (-40°F)	D 256	46 J/m (0.8 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	35 J (26 ft·lbf)
@ -40°C (-40°F)	D 3763	44 J (32 ft·lbf)

Thermal Properties**Deflection Temperature**

@ 0.455 MPa (66 psi)	D 648	68°C (154°F)
@ 1.82 MPa (264 psi)	D 648	60°C (140°F)

Optical Properties

Haze	D 1003	0.4%
Total Transmittance	D 1003	91%

Typical Processing Conditions

Drying Temperature ^d	71°C (160°F)
Drying Time ^d	6 hrs
Processing Melt Temperature	249-271°C (480-520°F)
Mold Temperature	16-38°C (60-100°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.

^d Drying is only recommended for products previously opened and exposed to humid conditions.

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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