EASTMAN

Technical Data Sheet

Drystar™ 0827 Copolyester

Applications

- Jars-skin care pkg

Product Description

Eastman is pleased to announce the launch of DRYSTAR* copolyesters. This new product-line is designed to meet the needs of converters seeking value-added solutions to their drying requirements of copolyesters. Eastman's copolyesters are highly valued for their excellent balance of properties such as superior aesthetics, impact strength, and chemical resistance. These properties can be optimally realized when the resins are properly dehydrated in accordance to recommended drying conditions and equipment.

Recognizing this value, Eastman conceived Drystar™ copolyesters to allow converters with limited access to desiccant dryers to achieve these optimizations. In addition, some converters with desiccant dryers may still find Drystar™ copolyesters value-adding to attain production flexibility and cost saving by removing the drying process prior to injection molding, profile extruding, or extrusion blow molding copolyesters. The initial launch comprises of the commercialization of four grades of Drystar™ copolyesters and Eastman has on-going program to extend this strategic product-line in the future.

*DRYSTAR is only available in the Asia Pacific Region.

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General Properties		
Specific Gravity	D 792	1.27
Mold Shrinkage	D 955	0.002-0.005 mm/mm
Mechanical Properties		
Tensile Stress @ Yield	D 638	50 MPa (7200 psi)
Tensile Stress @ Break	D 638	25 MPa (3600 psi)
Elongation @ Yield	D 638	4 %
Elongation @ Break	D 638	36 %
Flexural Modulus	D 790	2200 MPa (3.2 x 10^5 psi)
Flexural Strength	D 790	73 MPa (10500 psi)
Rockwell Hardness, R Scale	D 785	104
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	85 J/m (1.5 ft·lbf/in.)
@ -40°C (-40°F)	D 256	39 J/m (0.7 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	31 J (23 ft·lbf)
@ -40°C (-40°F)	D 3763	47 J (35 ft·lbf)
Optical Properties		
Haze	D 1003	0.4 %
Total Transmittance	D 1003	90 %
Thermal Properties		

Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	65 °C (149 °F)
@ 1.82 MPa (264 psi)	D 648	60 °C (140 °F)
Typical Processing Conditions		
Drying Temperature[d]		70 °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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