

Product Data Sheet

Eastman™ Copolyester 13319

Application/Uses

- Food packaging

Product Description

Eastman™ Copolyester 13319 has a high melting point, low extractables, and good hydrolytic stability.

Typical Properties

Property ^a	Test ^b Method	Typical Value, Units ^c
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Pellet Properties

Inherent Viscosity ^d	EMN-A-AC-G- V-1	0.96
Density ^e	D 1505	1.195 g/cm ³
Bulk Density ^f	D 1895	739 kg/m ³ (46 lb/ft ³)
Melt Density @ 300°C (572°F)	D 1238 (Note A- Table 2)	1.09 g/cm ³
Glass Transition Temperature (T _g)	DSC	92°C (198°F)
Crystalline Peak Melting Point (T _m)	D 3418	285°C (545°F)
Heat of Fusion	E 793	67 kJ/kg (16 cal/g)
Thermal Conductivity	C 177	0.21 W/m·K (1.5 Btu·in./h·ft ² ·°F)
Specific Heat		
@ 50°C (122°F)	DSC	1.5 kJ/kg·K (0.36 Btu/lb·°F)
@ 130°C (266°F)	DSC	1.8 kJ/kg·K (0.43 Btu/lb·°F)
@ 180°C (356°F)	DSC	2 kJ/kg·K (0.48 Btu/lb·°F)
@ 250°C (482°F)	DSC	2.2 kJ/kg·K (0.53 Btu/lb·°F)

Film Properties (Oriented 3X)

Thickness of Film Tested		25 microns (1 mils)
Density (film)	D 1505	1.21 g/cm ³
Haze	D 1003	4.2%
Gloss @ 45°	D 2457	109

Regular Transmittance	D 1003	91%
Elmendorf Tear Resistance		
M.D.	D 1922	25 gf
T.D.	D 1922	20 gf
Tensile Strength @ Break M.D.	D 882	145 MPa (21000 psi)
Elongation @ Break M.D.	D 882	30%
Tensile Modulus M.D.	D 882	2280 MPa (3.3 x 10 ⁵ psi)
Coefficient of Friction ^g	D 1894	0.5
Water Vapor Transmission Rate	F 372	2.3 g/m ² ·24h (0.15 g/100in. ² ·24h)
Gas Permeability, O ₂	D 3985	21 cm ³ ·mm/m ² ·24h·atm (53 cm ³ ·mil/100in. ² ·24h·atm)

Typical Processing Conditions

Drying Temperature	121°C (250°F)
Drying Time ^h	4 hrs
Extrusion Temperature	299-302°C (570-576°F)
Injection Molding Temperature	299-316°C (570-600°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 Inherent viscosity of film (as extruded) 0.84; film thickness 125 microns (5 mils).

^e Amorphous

^f Poured

^g Film-to-Film

^h At Dew Point -29°C to -40°C (-20°F to -40°F)

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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