EASTMAN

Technical Data Sheet

Eastar™ Copolyester EN058 Natural

Applications

- Auto plastics
- Bottles-skin care pkg
- Closures-fragrance pkg
- Consumer electronics
- Consumer housewares - food contact (fc)
- Deoderant containers
- Equipment & machinery
- Fragrance packaging
- Jars-skin care pkg
- Packaging components non food contact
- Personal care & cosmetics packaging
- Personal care bottles
- Skin care packaging
- Sporting equipment
- Water/sport bottles

Product Description

Eastar™ EN058 Copolyester is a copolymer PET. It is crystallized and has an Intrinsic Viscosity of 0.58. Eastar™ EN058 copolyester is tailored to meet the need of the injection-molded cosmetics and personal care market. Easter™ EN058 is crystallized to allow faster, high-temperature drying. Its high-flow characteristics allow faster cycle times.

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 Properties		
Specific Gravity	D 792	1.33
Mold Shrinkage	D 955	0.002 mm/mm (0.002 in./in.)
Water Absorption, 24 h immersion	D 570	0.19 %
Mechanical Properties		
Tensile Stress @ Yield	D 638	58 MPa (8400 psi)
Tensile Stress @ Break	D 638	24 MPa (3500 psi)
Elongation @ Yield	D 638	4 %
Elongation @ Break	D 638	90 %
Flexural Yield Strength	D 790	78 MPa (11300 psi)
Flexural Modulus	D 790	2400 MPa (3.5 x 10^5 psi)
Rockwell Hardness, R Scale	D 785	111
Izod Impact Strength, Notched		

@ 23°C (73°F)	D 256	56 J/m (1.0 ft·lbf/in.)
@ -40°C (-40°F)	D 256	33 J/m (0.6 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	2446 J/m (46 ft·lbf/in.)
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C (73°F)	D 3763	32 J (24 ft·lbf)
@ -40°C (-40°F)	D 3763	38 J (28 ft·lbf)
Optical Properties		
Haze	D 1003	<1 %
Total Transmittance	D 1003	82 %
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	69 °C (156 °F)
@ 1.82 MPa (264 psi)	D 648	63 °C (145 °F)
Vicat Softening Temperature		
@ 1 kg load	D 1525	80 °C (176 °F)
Typical Processing Conditions		
Drying Temperature		160 °C (320 °F)
Drying Time		4-6 hrs
Processing Melt Temperature		277-293 °C (530-560 °F)
Mold Temperature		16-32 °C (60-90 °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 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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