

Technical Data Sheet

Eastar™ Copolyester AN011 Natural

Product Description

Eastar™ AN011 copolyester is a high flow product. Eastar™ AN011 flow lengths are increased 20-40% relative to Eastar™ AN001 as shown by spiral flow testing. It is one of our premier material for the cosmetics and personal care packaging market. Other outstanding features of Eastar™ are easily maintained such as excellent appearance and clarity, good physical properties, chemical resistance, and easy processing. This high flow product is especially suited for those applications utilizing thin-walled intricate tools. Under existing United States Food and Drug Administration (FDA) regulations, Eastar™ AN011 may be used in food contact articles which comply with the specifications and conditions of use in 21 CFR 177.1240.

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 [www.geiconsulting.com](#).

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	1.19
Mold Shrinkage	D 955	0.003 mm/mm (0.003 in./in.)
Water Absorption, 24 h immersion	D 570	0.15 %
Mechanical Properties		
Tensile Stress @ Yield	D 638	50 MPa (7200 psi)
Tensile Stress @ Break	D 638	43 MPa (6300 psi)
Elongation @ Yield	D 638	5 %
Elongation @ Break	D 638	270 %
Flexural Yield Strength	D 790	68 MPa (9800 psi)
Flexural Modulus	D 790	1900 MPa (2.7 x 10 ⁵ psi)
Rockwell Hardness, R Scale	D 785	107
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	80 J/m (1.5 ft·lbf/in.)
@ -40°C (-40°F)	D 256	44 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	40 J (30 ft·lbf)
@ -40°C (-40°F)	D 3763	38 J (28 ft·lbf)
Optical Properties		
Total Transmittance	D 1003	92 %
Haze	D 1003	< 1 %
Thermal Properties		
Deflection Temperature		

@ 0.455 MPa (66 psi)	D 648	73 °C (163 °F)
@ 1.82 MPa (264 psi)	D 648	66 °C (150 °F)
Vicat Softening Temperature		
@ 1 kg load	D 1525	86 °C (186 °F)
Typical Processing Conditions		
Drying Temperature		70 °C (160 °F)
Drying Time		4 hrs
Processing Melt Temperature		230-280 °C (450-530 °F)
Mold Temperature		15-30 °C (60-80 °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 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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