

# Technical Data Sheet

## Eastalloy™ Polymer DA510, Natural

### Applications

- Consumer electronics

### Product Description

Eastalloy™ Polymer DA510 is a clear copolyester/polycarbonate alloy. This product has good impact strength, chemical resistance, heat resistance, dimensional stability, and low mold shrinkage.

### Typical Properties

Property <sup>a</sup>	Test Method <sup>b</sup>	Typical Value, Units <sup>c</sup>
<b>General Properties</b>		
Specific Gravity	D 792	1.2
Mold Shrinkage		
Parallel to Flow	D 955	0.005-0.007 mm/mm (0.005-0.007 in./in.)
Water Absorption, 24 h immersion	D 570	0.15 %
<b>Mechanical Properties</b>		
Tensile Stress @ Yield	D 638	50 MPa (7230 psi)
Tensile Stress @ Break	D 638	56 MPa (8175 psi)
Elongation @ Yield	D 638	5.5 %
Elongation @ Break	D 638	195 %
Flexural Modulus	D 790	2100 MPa (3.1 x 10 <sup>5</sup> psi)
Flexural Strength	D 790	76 MPa (11000 psi)
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	NB
@ -40°C (-40°F)	D 256	91 J/m (1.7 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	55 J (40 ft·lbf)
@ -40°C (-40°F)	D 3763	49 J (36 ft·lbf)
<b>Optical Properties</b>		
Haze	D 1003	0.5 %
Total Transmittance	D 1003	86 %
<b>Thermal Properties</b>		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	90 °C (195 °F)
@ 1.82 MPa (264 psi)	D 648	77 °C (170 °F)
<b>Typical Processing Conditions</b>		
Drying Temperature		88 °C (190 °F)
Drying Time		4-6 hrs
Processing Melt Temperature		266-288 °C (510-550 °F)
Mold Temperature		27-60 °C (80-140 °F)

<sup>a</sup>Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

<sup>b</sup>Unless noted otherwise, the test method is ASTM.

<sup>c</sup>Units are in SI or US customary units.

## Comments

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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