



## Product Data Sheet

### *Provista* Copolymer

#### Key Attributes

- Sparkling clarity and high gloss
- Toughness with flexibility
- Ease of processing
- Excellent chemical resistance
- Meets FDA regulations for food contact

#### Product Description

*Provista* copolymer is a resin specifically developed for extrusion into profiles where aesthetics like high clarity and gloss, coupled with design flexibility drive demand. Compared to commonly used materials, *Provista* copolymer can often run on most standard processing equipment at increased speeds. An extremely high melt strength makes the resin an excellent choice when extruding profiles into complicated shapes. This product is certified to ANSI/NSF Standard 51.

#### List of Applications

- Candy packaging
- Furniture guards
- Pricing channels
- Tubing
- Food packaging
- Point of purchase displays
- Teething rails

#### Typical Properties (Preliminary)

Property <sup>a</sup>	Test <sup>b</sup> Method	Typical Value, Units <sup>c</sup>
<b>General Properties</b>		
Density	D 792	1.27 g/cm <sup>3</sup>
<b>Mechanical Properties</b>		
Tensile Stress @ Yield	D 638	50 MPa (7300 psi)
Tensile Stress @ Break	D 638	29 MPa (4200 psi)
Elongation @ Yield	D 638	4%
Elongation @ Break	D 638	109%
Flexural Modulus	D 790	2200 MPa (3.2 x 10 <sup>5</sup> psi )
Flexural Strength	D 790	72 MPa (10400 psi)
Rockwell Hardness, R Scale	D 785	106
Izod Impact Strength, Notched <sup>d</sup>		
@ 23°C (73°F)	D 256	94 (9C/1NB) J/m (1.8 (9C/1NB) ft·lbf/in.)
@ -40°C (-40°F)	D 256	52C J/m (1.0C ft·lbf/in.)
Impact Strength, Unnotched <sup>e</sup>		
@ 23°C (73°F)	D 4812	NB

@ -40°C (-40°F)	D 4812	NB
<b>Impact Resistance (Puncture), Energy @ Max. Load <sup>f</sup></b>		
@ 23°C (73°F)	D 3763	33 J (24 ft·lbf)
@ 0°C (32°F)	D 3763	37 J (27 ft·lbf)
@ -40°C (-40°F)	D 3763	41 J (30 ft·lbf)

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### Thermal Properties

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<b>Deflection Temperature</b>		
@ 0.455 MPa (66 psi)	D 648	67°C (153°F)
@ 1.82 MPa (264 psi)	D 648	62°C (144°F)
<b>Vicat Softening Temperature @ 1 kg load</b>	D 1525	79°C (174°F)

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### Optical Properties

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Haze	D 1003	0.6%
Regular Transmittance	D 1003	88%
Total Transmittance	D 1003	90%
Gloss @ 60°	D 2457	171
Color, b* CIELAB, Illuminant D6500, 10° Observer	D 2244	0.61

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<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.

<sup>d</sup> Testing conducted using 10 standard flex bars with 20 mil notch; C = complete break; NB = nonbreak.

<sup>e</sup> Nonbreak as defined by ASTM D 4812.

<sup>f</sup> Testing conducted using 10 standard 4" x 4" x 0.125" thick injection molded plaques; 100% ductile break.

### 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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