

# Technical Data Sheet

## Eastar™ Copolyester BR303

### Applications

- Oral hygiene

### Product Description

Eastar™ BR303 copolyester is a brilliantly clear polymer with excellent impact strength, chemical resistance, and low shrinkage, making it a great choice for toothbrush applications.

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.

This product has been CRADLE TO CRADLE CERTIFIED™ Bronze, with Material Health Certificate, Platinum. The CRADLE TO CRADLE CERTIFIED mark is a registered certification mark used under license through the Cradle to Cradle Products Innovation Institute, a nonprofit organization that administers the publicly available *Cradle to Cradle Certified*™ Product Standard which provides designers and manufacturers with criteria and requirements for continually improving product materials and manufacturing processes. The *Cradle to Cradle Certified*™ Product Standard guides designers and manufacturers through a continual improvement process that looks at a product through five quality categories—material health, material reutilization, renewable energy and carbon management, water stewardship, and social fairness. A product receives an achievement level in each category—Basic, Bronze, Silver, Gold, or Platinum—with the lowest achievement level representing the product's overall mark.

The Material Health Certificate provides manufacturers with a trusted way to communicate their efforts to identify and replace chemicals of concern in their products. For more information about Cradle to Cradle certification and to obtain printable certificates for Eastman copolyesters, visit [www.cradletogether.com](#). Search for Eastman Chemical Company in *Cradle to Cradle Certified* Products Registry.

### Typical Properties

Property <sup>a</sup>	Test Method <sup>b</sup>	Typical Value, Units <sup>c</sup>
<b>Mechanical Properties</b>		
Flexural Modulus	D 790	1800 MPa (2.6 x 10 <sup>5</sup> psi)
Rockwell Hardness, R Scale	D 785	105
Izod Impact Strength, Notched		
@ -40°C (-40°F)	D 256	79 J/m (1.48 ft·lbf/in.)
@ 23°C (73°F)	D 256	NB
<b>Optical Properties</b>		
Haze	D 1003	<1.0 %
Total Transmittance	D 1003	92 %
<b>Other Properties</b>		

Bio-based Content	0 %
<b>Thermal Properties</b>	
Crystallization half time	52 min.
<b>Typical Processing Conditions</b>	
Drying Time	6 hrs
Drying Temperature	71 °C (163 °F)
Processing Melt Temperature	249-271 °C (480-520 °F)
Mold Temperature	16-38 °C (60-100 °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 typical of average lots. Eastman makes no representation that the material in any particular shipment will conform to the values given.

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