

# ΕΛSTΜΛΝ

## Technical Data Sheet Eastar™ Copolyester EB062

#### Application/Uses

- Beverage packaging
- Bottles
- Clear handleware
- Cosmetic packaging
- Distilled spirits packaging
- Extrusion blow molding
- Food containers
- Glass bottle alternative
- Household packaging
- Juice packaging
- Large liquid containers
- Personal care bottles

### **Key Attributes**

- Easy to extrude, cut, print, and seal
- Effective barrier properties
- Excellent chemical resistance
- Excellent clarity
- Excellent colorability
- Good impact strength
- Good stiffness
- High gloss appearance
- Toughness

### **Product Description**

Eastar<sup>™</sup> Copolyester EB062 is a resin specifically developed for extrusion blown bottles where aesthetics such as high clarity and gloss, coupled with design flexibility, drive demand particularly in packaging for cosmetics and personal care. Compared to commonly used materials, Eastar<sup>™</sup> copolyester EB062 runs on most standard processing equipment. Extremely high melt strength makes the resin an excellent choice when manufacturing bottles. This product offers improved toughness, melt strength, chemical resistance, excellent color, and clarity in thick-walled applications. Eastar<sup>™</sup> Copolyester EB062 is certified to NSF/ANSI Standard 51 for Food Equipment Materials.

Eastar EB062 is cleared for various food contact applications (including contact with most alcoholic beverages) by FCN No. 1234 as described in the <u>Food and Drug Administration (FDA)</u> <u>Inventory of Effective Food Contact Substance Notifications</u> and may be used in full compliance with the United States Federal Food and Drug, and Cosmetic Act, provided that it is used within the limitations set forth for FCN 1234.

#### 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 industryindependent, 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<sup>™</sup> Copolyesters, visit <u>www.greenguard.org</u>. 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<sup>cm</sup> Silver.

The CRADLE TO CRADLE CERTIFIED Mark is a registered certification mark used under license through McDonough Braungart Design Chemistry (MBDC). MBDC is a global sustainability consulting and product certification firm. The CRADLE TO CRADLE framework moves beyond the traditional goal of reducing the negative impacts of commerce ('eco-efficiency'), to a new paradigm of increasing its positive impacts ('eco-effectiveness'). At its core, Cradle to Cradle design perceives the safe and productive processes of nature's 'biological metabolism' as a model for developing a 'technical metabolism' flow of industrial materials. Product components can be designed for continuous recovery and reutilization as biological and technical nutrients within these metabolisms. For more information about MBDC and to obtain printable certificates for Eastman Copolyesters, visit <u>www.mbdc.com</u>. Choose Eastman Chemical Company under Company Name in C2C Certified products to display a list of our products.

### **Typical Properties**

Property <sup>a</sup>	Test <sup>b</sup> Method	Typical Value, Units <sup>c</sup>
General Properties		
Density	D 792	1.25 g/cm <sup>3</sup>
Mold Shrinkage	D 955	0.3%
Mechanical Properties		
Tensile Stress @ Yield	D 638	47 MPa (6900 psi)
Tensile Stress @ Break	D 638	48 MPa (7000 psi)
Elongation @ Yield	D 638	5%

Elongation @ Break	D 638	300%	
Tensile Modulus	D 638	1900 MPa (2.7 x 10 <sup>5</sup> psi )	
Flexural Modulus	D 790	1900 MPa (2.7 x 10 <sup>5</sup> psi )	
Flexural Strength	D 790	65 MPa (9400 psi)	
Rockwell Hardness, R Scale	D 785	105	
Izod Impact Strength, Notched d			
@ 23°C (73°F)	D 256	NB	
@ -40°C (-40°F)	D 256	63C J/m (1.2C ft·lbf/in.)	
Impact Strength, Unnotched e			
@ 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	41 J (30 ft·lbf)	
@ 0°C (32°F)	D 3763	41 J (30 ft·lbf)	
@ -40°C (-40°F)	D 3763	39 J (29 ft·lbf)	
Thermal Properties			
Deflection Temperature			
@ 0.455 MPa (66 psi)	D 648	73°C (163°F)	
@ 1.82 MPa (264 psi)	D 648	63°C (145°F)	
Vicat Softening Temperature	D 1525	85°C (185°F)	
Optical Properties			
Haze	D 1003	1.3%	
Gloss @ 60°	D 2457	143	
Regular Transmittance	D 1003	87%	
Total Transmittance	D 1003	91%	
Color			
L*	D 2244	95.0	
a*	D 2244	-0.2	

<sup>a</sup> 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.

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

<sup>d</sup> C = Complete Break; Nonbreak as defined by ASTM D 256.

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

#### Comments

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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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