

Technical Data

产品说明	Eastar™ EN001 Copolyester is a thermoplastic polyester copolymer and is suitable for food packaging applications. Eastar™ EN001 Copolyester has a relatively slow crystallization rate. This broadens the operating window for extrusion and forming processes and helps maintain good clarity when processing much thicker sheet. Eastar™ EN001 copolyester can also be used for injection molding applications. It is the preferred general-purpose crystallizable PET for thermoforming. Eastar™ EN001 copolyester is regulated for use in food packaging applications in accordance with US FDA Regulation 21 CFR 177.1315. It is lawful for use under US Department of Agriculture Food Safety Inspection Service regulations as a packaging material for meat or poultry food products prepared under federal inspection. 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.greenguard.org. Choose Eastman Chemical Company under the Manufacturer category and click search to display a list of our products.		
Eastar™ EN001	Eastman Aspira™ 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. Compared to commonly used materials, Eastman Aspira™ copolyester EB062 runs on most standard processing equipment. Extremely high melt strength makes the resin an excellent choice when manufacturing large bottles. Eastman Aspira™ EB062 is certified to NSF/ANSI Standard 51 for Food Equipment Materials. Eastman Aspira™ is cleared for various food contact applications (including contact with most alcoholic beverages) by FCN No. 1234 as described in the Food and Drug Administration (FDA) Inventory of Effective Food Contact Substance Notifications 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 CRADLE TO CRADLE CERTIFIED 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 www.mbdc.com. Choose Eastman Chemical Company under Company Name in C2C Certified products to display a list of our products.		
Aspira™ EB062	Eastman Aspira™ 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. Compared to commonly used materials, Eastman Aspira™ copolyester EB062 runs on most standard processing equipment. Extremely high melt strength makes the resin an excellent choice when manufacturing large bottles. Eastman Aspira™ EB062 is certified to NSF/ANSI Standard 51 for Food Equipment Materials. Eastman Aspira™ is cleared for various food contact applications (including contact with most alcoholic beverages) by FCN No. 1234 as described in the Food and Drug Administration (FDA) Inventory of Effective Food Contact Substance Notifications 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 CRADLE TO CRADLE CERTIFIED 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 www.mbdc.com. Choose Eastman Chemical Company under Company Name in C2C Certified products to display a list of our products.		
SKYGREEN® JN200	SKYGREEN® JN200 是一种聚对苯二甲酸环己基二亚甲酯，乙二醇 (PCTG)材料。该产品在北美洲、欧洲或亚太地区有供货。SKYGREEN® JN200 的主要特性为:阻燃/额定火焰。		
总体	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200
生产商/供应商	• Eastman Chemical Company	• Eastman Chemical Company	• SK Chemicals
通用符号	• 共聚多酯	• 共聚多酯	• PCTG
材料状态	• 已商用：当前有效	• 已商用：当前有效	• 已商用：当前有效



总体	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200		
资料 ¹	• Technical Datasheet (English)	• Technical Datasheet (English)	• Technical Datasheet (English)		
UL 黄卡 ²	--	--	• E215991-270391		
搜索 UL 黄卡	• Eastman Chemical Company • Eastar™	• Eastman Chemical Company	• SK Chemicals		
供货地区	• 北美洲 • 非洲和中东 • 拉丁美洲 • 欧洲 • 亚太地区	• 北美洲 • 非洲和中东 • 拉丁美洲 • 欧洲 • 亚太地区	• 北美洲 • 欧洲 • 亚太地区		
特性	• 共聚物 • 食品接触的合规性 • 中等透明度	• 刚性，良好 • 高光 • 抗撞击性，良好 • 良好的熔体强度 • 良好的着色性 • 耐化学性良好 • 清晰度，高 • 韧性良好	--		
用途	• 家用货品 • 食品包装 • 体育用品 • 玩具 • 文具	• 包装 • 瓶子 • 食品包装 • 食品容器	--		
机构评级	• FDA 21 CFR 177.1315	• NSF 51	--		
形式	• 粒子	--	--		
加工方法	• 挤出 • 片材挤出成型 • 热成型 • 注射成型	• 挤出吹塑成型	--		
物理性能	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
密度 / 比重					
--	1.33	1.25	1.23	g/cm³	ASTM D792
23°C	1.33	--	--	g/cm³	ISO 1183/D
收缩率 - 流动	--	0.30	0.20 到 0.50	%	ASTM D955



机械性能	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
拉伸模量					
23°C	2400	1900	--	MPa	ASTM D638
23°C	2400	--	--	MPa	ISO 527-2
抗张强度					
屈服 4	--	--	45.0	MPa	ASTM D638
屈服, 23°C	58.0	47.0	--	MPa	ASTM D638
屈服, 23°C	57.0	--	--	MPa	ISO 527-2
断裂 4	--	--	53.0	MPa	ASTM D638
断裂, 23°C	25.0	48.0	--	MPa	ASTM D638
断裂, 23°C	25.0	--	--	MPa	ISO 527-2
伸长率					
屈服 4	--	--	5.0	%	ASTM D638
屈服, 23°C	--	5.0	--	%	ASTM D638
断裂 4	--	--	340	%	ASTM D638
断裂, 23°C	120	300	--	%	ASTM D638
断裂, 23°C	120	--	--	%	ISO 527-2
弯曲模量					
-- 5	--	--	1800	MPa	ASTM D790
23°C	2500	1900	--	MPa	ASTM D790
23°C	2300	--	--	MPa	ISO 178
弯曲强度					
-- 5	--	--	67.0	MPa	ASTM D790
23°C	--	65.0	--	MPa	ASTM D790
23°C	77.0	--	--	MPa	ISO 178
屈服, 23°C	84.0	--	--	MPa	ASTM D790
冲击性能	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
悬壁梁缺口冲击强度					
-40°C	27	63	--	J/m	ASTM D256
23°C	40	无断裂	无断裂	J/m	ASTM D256
-40°C	3.1	--	--	kJ/m²	ISO 180/1A
23°C	4.5	--	--	kJ/m²	ISO 180/1A



冲击性能	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
无缺口悬臂梁冲击					
-40°C	无断裂	--	--		ASTM D4218
-40°C	--	无断裂	--		ASTM D4812
-30°C	无断裂	--	--		ASTM D4218
-20°C	无断裂	--	--		ASTM D4218 ISO 180/1U
23°C	无断裂	--	--		ASTM D4218 ISO 180/1U
23°C	--	无断裂	--		ASTM D4812
-40°C	170	--	--	kJ/m²	ISO 180/1U
-30°C ⁶	190	--	--	kJ/m²	ISO 180/1U
装有测量仪表的落镖冲击					
-40°C, Energy at Peak Load	--	39.0	--	J	ASTM D3763
-40°C, 2.50 mm, Energy at Peak Load	1.60	--	--	J	ASTM D3763
-40°C, 3.20 mm, Energy at Peak Load	2.10	--	--	J	ASTM D3763
0°C, Energy at Peak Load	--	41.0	--	J	ASTM D3763
23°C, Energy at Peak Load	--	41.0	--	J	ASTM D3763
23°C, 2.50 mm, Energy at Peak Load	26.0	--	--	J	ASTM D3763
23°C, 3.20 mm, Energy at Peak Load	31.0	--	--	J	ASTM D3763
-40°C, 2.50 mm, 能量到力量峰值	0.800	--	--	J	ISO 6603-2
-40°C, 3.20 mm, 能量到力量峰值	1.00	--	--	J	ISO 6603-2
23°C, 2.50 mm, 能量到力量峰值	15.0	--	--	J	ISO 6603-2
23°C, 3.20 mm, 能量到力量峰值	18.0	--	--	J	ISO 6603-2
硬度	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
洛氏硬度					
R 级, 23°C	112	105	--		ASTM D785
R 级	--	--	105		ASTM D785
R 计秤, 23°C	114	--	--		ISO 2039-2
热性能	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
载荷下热变形温度					
0.45 MPa, 未退火	69.0	73.0	70.0	°C	ASTM D648
0.45 MPa, 未退火	69.0	--	--	°C	ISO 75-2/B
1.8 MPa, 未退火	65.0	63.0	62.0	°C	ASTM D648
1.8 MPa, 未退火	65.0	--	--	°C	ISO 75-2/A
维卡软化温度	--	85.0	--	°C	ASTM D1525



可燃性	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
UL 阻燃等级					UL 94
1.5 mm	--	--	HB		
3.0 mm	--	--	HB		
光学性能	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
光泽度 (60°)	--	143	--		ASTM D2457
透射率					ASTM D1003
总计	84.0	91.0	--	%	
--	--	--	90.0	%	
常规	--	87.0	--	%	
雾度	1.0	1.3	< 1.0	%	ASTM D1003
补充信息	Eastar™ EN001	Aspira™ EB062	SKYGREEN® JN200	单位制	测试方法
Color a	--	-0.200	--		ASTM D2244
Color b	--	0.600	--		ASTM D2244
Color L	--	95.0	--		ASTM D2244

备注

- ¹ 通过这些链接您能够访问供应商资料。我们尽量保证及时更新资料；不过您可以从供应商处了解最新资料。

² UL 黄卡含有 UL 验证的易燃性和电气特性。UL Prospector 持续努力在 Prospector 中将黄卡链接至单个塑料材料，然而此列表可能未包括所有相应链接。重要的是，我们对 Prospector 中找到的这些黄卡和塑料材料之间的关联进行验证。如需完整的黄卡列表，请访问 UL 黄卡搜索。

³ 一般属性：这些不能被视为规格。

⁴ 50 mm/min

⁵ 1.3 mm/min

⁶ 90%C, 10%NB



购买地点	
供应商	
Eastar™ EN001	Eastman Chemical Company Kingsport, TN USA 电话: 800-327-8626 Web: http://www.eastman.com/
Aspira™ EB062	Eastman Chemical Company Kingsport, TN USA 电话: 800-327-8626 Web: http://www.eastman.com/
SKYGREEN® JN200	SK Chemicals 电话: 949-336-8088 (USA); +49-6196-902-0612 (Germany) Web: http://www.skchemicals.com/



分销商

Estar™ EN001

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

电话: +49-40-78105-0

Web: <http://www.albis.com/>

供货地区: Algeria, Austria, Belgium, Czech Republic, Denmark, Germany, Ireland, Luxembourg, Morocco, Netherlands, Norway, Russian Federation, Slovakia, Slovenia, Sweden, Tunisia, United Kingdom

Amco Polymers

电话: 800-262-6685

Web: <http://www.amcopolymers.com/>

供货地区: North America

CCC Plastics

电话: 800-465-6917

Web: <http://www.cccplastics.com/>

供货地区: Canada, United States

Nexeo Solutions

电话: 800-531-7106

Web: <http://www.nexeosolutions.com/>

供货地区: North America

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

电话: 800-894-4266

Web: <http://polyonedistribution.com/>

供货地区: Global

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

电话: +32-14-672511

Web: <http://www.resinex.com/>

供货地区: Europe

Aspira™ EB062

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

电话: +49-40-78105-0

Web: <http://www.albis.com/>

供货地区: Algeria, Austria, Belgium, Czech Republic, Denmark, Germany, Ireland, Luxembourg, Morocco, Netherlands, Norway, Russian Federation, Slovakia, Slovenia, Sweden, Tunisia, United Kingdom

CCC Plastics

电话: 800-465-6917

Web: <http://www.cccplastics.com/>

供货地区: Canada, United States



SKYGREEN® JN200

Biesterfeld Plastic GmbH*Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.***电话:** +49-40-32008-0**Web:** <http://www.biesterfeld-plastic.com/>**供货地区:** Algeria, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Faroe Islands, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom**Chase Plastic Services, Inc.***Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here: <http://www.chaseplastics.com/contact/locations>***电话:** 800-232-4273**Web:** <http://www.chaseplastics.com/>**供货地区:** North America**ResMart****电话:** 844-738-8806**Web:** <http://www.resmart.com>**供货地区:** North America**Southland Polymers***Southland Polymers - Full Service Engineering and Commodity Resin Distribution Since 1979***电话:** 562-921-0444**Web:** <http://www.southlandpolymers.com/>**供货地区:** Central America, North America, South America**沃德夫聚合物 (上海) 有限公司****电话:** +86-21-51688081; Mr. Ma Cell: +86-13621999631**Web:** <http://www.wdfsh.cn>**供货地区:** China