

Eastman Spectar™ copolyester PETG — reducing environmental impact through materials

Sustainability — A way of doing business

At Eastman, we see sustainability as a way of doing business. At the most elementary level, embracing sustainability as it relates to respecting the environment ensures our license to operate in our home communities. And on a global scale, sustainability helps us make decisions around resource allocation, product offerings and business models. At Eastman, sustainability has always been and always will be our way of doing business.

Sustainable innovation through materials

Imagine a material that allows architects, designers and fabricators to push the envelope of creativity and design with eye-catching results and the environment in mind. Imagine no more with Eastman Spectar™ copolyester PETG.

- Eastman Spectar™ does not contain halogens, sulfur, nitrogen, lead, mercury, cadmium or hexavalent chromium.
- Eastman Spectar™ is BPA-free. Bisphenol-A (BPA) is not used in the manufacture of Spectar™.
- The extrusion energy differential between Spectar™ and acrylic (PMMA) resins was experimentally measured. The energy (per pound) to extrude Spectar™ is 3.5 times less than acrylic.
- Eastman Spectar™ is GREENGUARD Indoor Air Quality Certified®, recognizing Eastman Chemical Company for manufacturing low-emitting products for better indoor environments.



DID YOU KNOW?

The toughness of Eastman Spectar™ copolyester sheet enables it to be down gauged and still have a greater durability than acrylic (PMMA).

Covering a football field with 3 mm of Spectar™ sheet (down gauged by 20%) compared to 3 mm of acrylic would equate to 4,316 lbs less Spectar™ used.

Eastman Spectar™ copolyester

For every 10,000 lbs of Spectar™ used instead of acrylic (PMMA), the energy saved could power 5 homes and take 3.3 cars off the street every year.

Spectar™ is tough, allowing roughly 20% down gauging of the material, which reduces use of plastic.

Spectar™ is durable, enabling longer life, less replacement, and thus less plastic is released into the environment. The impact resistance (puncture energy at max load, ASTM D3763 for 3 mm sheet at 70°F) of Spectar™ (53 ft-lb) is about 18 times that of general purpose acrylic (PMMA) (3 ft-lb) and about 2 times that of impact modified acrylic (PMMA) (26 ft-lb).

Some of Eastman's extrusion partners offer sheet made from Spectar™ that can contribute points toward LEED¹-certified building projects in the following ways:

- Recycle content (LEED MR 4.1 & 4.2)
- Low-emitting materials/IAQ Indoor Air Quality compliant products (LEED EQ 4.1)
- Regional materials (LEED MR 5.1)
- Daylight & views (LEED EQ 8.1, 8.2 & 8.3)

Spectar™ complies with the compositional requirements of the following food-contact regulations and directives:

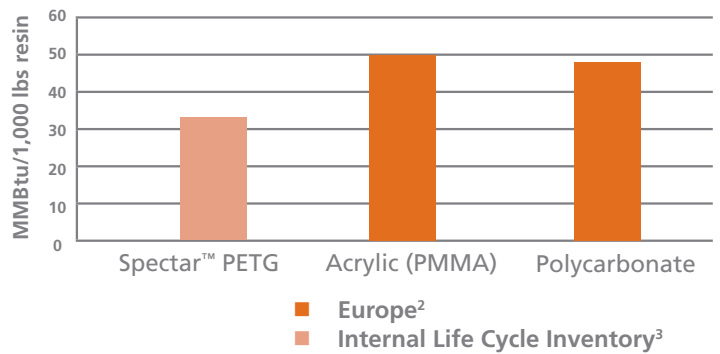
- FDA Food Contact Notification 179 (FCN 179), and regulation 21 CFR 177.1315(b)(1)
- EU Directive 2002/72/EC

¹Leadership in Energy and Environmental Design

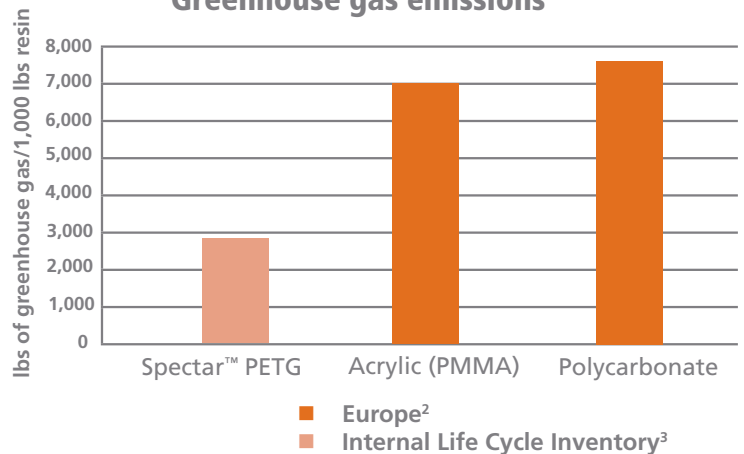
²Graph data populated by the Federal Institute for Risk Assessment (BfR) Dahlem, Thielallee 88-92, Berlin

³Comprehensive LCI, conducted by Franklin Associates, Ltd.

Cradle-to-pellet energy data



Greenhouse gas emissions



EASTMAN

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Printed in U.S.A. on 100% recycled paper.

Material Safety Data Sheets providing safety precautions, that should be observed when handling and storing Eastman™ products, are available online or by request. You should obtain and review the available material safety information before handling any of these products. If any materials mentioned are not Eastman™ products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

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