

CELANESE HYTREL® TPC ECO-B THERMOPLASTIC ELASTOMER SETS NEW STANDARD FOR FUNCTIONAL SUSTAINABILITY



Based on a biomass balance approach, these Hytrel® TPC grades can improve sustainability for many applications, including sporting and consumer goods, furniture, footwear, and automotive components.

A BALANCED APPROACH

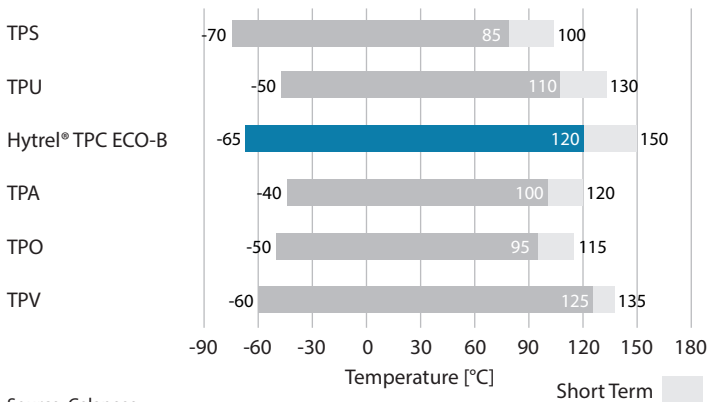
Celanese produces Hytrel® TPC ECO-B using a biomass balance approach certified by the ISCC+ (International Sustainability & Carbon Certification) standard. This approach is increasingly adopted by the plastic value chain because it is cost-efficient and still benefits the environment. Hytrel® TPC ECO-B uses up to 72% second-generation biomass (bio residue/waste) that does not compete with food/feed supplies and does not induce land use change. The biomass balance approach also increases the flexibility to manage through the value chain with the same or higher benefit to the environment, enabling the shift to a more circular economy.

EQUAL PERFORMANCE

Hytrel® TPC ECO-B properties are identical to Hytrel® TPC standard grades. No transition evaluation or retooling is needed after Hytrel® TPC standard grades have been specified. Manufacturers who seek to reduce the environmental impact of their offerings, yet still require high-performance materials for their products, will find a superb balance in Hytrel® TPC ECO-B. This new, sustainable solution meets the needs of manufacturers in the consumer, sporting goods, consumer electronics, and furniture industries. It is also a sustainable option for the automotive industry, which already relies on conventional grades of Hytrel® TPC.

Hytrel®, as a TPC thermoplastic elastomer, goes further than other TPEs in its ability to match the flexibility of rubber, while still maintaining the strength and ease of processing of plastics. Other types of TPEs are also soft and flexible, but rarely are they as durable and robust as Hytrel® TPC. With Hytrel® TPC ECO-B, this unique mix of characteristics is now available in a range of significantly more sustainable grades.

SERVICE TEMPERATURE RANGE COMPARISON FOR THERMOPLASTIC ELASTOMERS



Source: Celanese

Like all Hytrel® TPC grades, this new range of sustainable material solutions offers the same durability and strength, coupled with incredible flexibility. The chart above shows that these materials have a wide range of service temperatures. In addition, they remain flexible even in extreme cold, and maintain properties even in extreme heat. Chemically resistant, they can be overmolded onto many rigid thermoplastics. Finally, exceptional melt stability enables processors to recycle scrap efficiently.

| Hytrel® TPC Standard Grade | Hytrel® TPC ECO-B |
|--|--|
| Hytrel® TPC 3078 | Hytrel® TPC 3078 ECO-B |
| Hytrel® TPC 4039 (High Flow Hytrel® TPC 4069) | Hytrel® TPC 4039 ECO-B (High Flow Hytrel® TPC 4069) |
| Hytrel® TPC 4056 | Hytrel® TPC 4056 ECO-B |
| Hytrel® TPC 4068 | Hytrel® TPC 4068 ECO-B |
| Hytrel® TPC 4069 | Hytrel® TPC 4069 ECO-B |
| Hytrel® TPC 5556 | Hytrel® TPC 5556 ECO-B |
| Hytrel® TPC 6356 | Hytrel® TPC 6356 ECO-B |
| Hytrel® TPC 7246 | Hytrel® TPC 7246 ECO-B |
| Hytrel® TPC HTR8908 | Hytrel® TPC HTR8908 ECO-B |

Hytrel® TPC ECO-B properties are identical to Hytrel® TPC standard grades. These 9 grades range in hardness from 30 to 72 Shore D.
Source: Celanese

WHY CHOOSE HYTREL® TPC ECO-B?

In addition to this material's improved sustainability profile, its fundamental properties are identical to those of Hytrel® TPC produced through fossil feedstocks, and include:

- Flexibility and resilience
- Excellent low temp flexibility and toughness
- Broad service temperature (-65°C to 150°C)
- Superior bonding performance with PC based material
- Highly resistant to hydrocarbons & other fluids
- Excellent flex fatigue resistance
- Excellent creep resistance
- Resistant to tearing and flex cut growth
- Good noise and vibration dampening at low temperatures
- Wide processing window with thermal stability

THE CHEMISTRY INSIDE INNOVATION™

The foundation of everything we do centers around what our customers need. It's not just about the solutions we innovate, but also how we work with our customers. Through our worldwide network of innovation and technical centers, our leading researchers work in close collaboration with customers, from concept to commercialization, using a wide range of processing techniques, prototyping technologies, and testing expertise.

DISCOVER MORE

For more information about using Hytrel® TPC ECO-B solutions in your applications and improving your product's sustainable footprint, contact your Celanese representative.

celanese.com

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