

OCTAL is the largest integrated PET sheet and resin manufacturer in the world and the maker of DPET™, a high performing plastic with the lowest carbon footprint on the market today. By producing a superior material with a smaller environmental impact, and using patented technologies that continue to advance innovations in PET processing, OCTAL is driving sustainability in clear, rigid plastic packaging.

OCTAL PET: Environmentally Responsible Packaging

OCTAL was founded on a commitment to the principles of sustainability. These principles have shaped the development of our facilities and production methods. They are inherent in our products and guide our people every day. OCTAL has **invested US \$600 million** to create a purpose-designed production facility that exceeds environmental standards for and is significantly more efficient than conventional virgin PET sheet and resin plants.



High efficiency LED lighting, solar panels and natural lighting minimize energy use in OCTAL's plant



OCTAL's strategic location reduces transportation-related fuel consumption and emissions



100%
of internally generated resin production is collected and processed into sealable product

100%
of water used for production and green belt irrigation is recycled municipal wastewater

As the world's largest integrated PET sheet and resin manufacturer, OCTAL has an annual production capacity of one million tons and is fully capable of **leading the wholesale conversion of customers' global product lines to DPET™ packaging.**

To learn more about how OCTAL can help you achieve your sustainability goals, reduce costs and delight your customers, contact us at: info@octal.com

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LEADING THE INDUSTRY in Sustainable Packaging

OCTAL: HIGH PERFORMANCE PET WITH THE SMALLEST CARBON FOOTPRINT



The **Leading Choice** for Clear Rigid Packaging

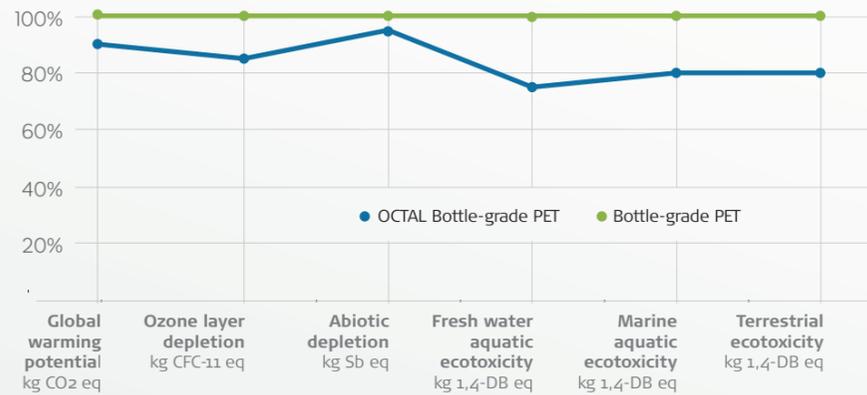
OCTAL PET Resin: A Low Carbon Alternative

OCTAL has implemented a **state-of-the-art two-stage reactor system** to produce virgin PET resin. OCTAL's unique resin manufacturing process eliminates an entire step, SSP, from the standard process, which decreases manufacturing energy consumption. OCTAL bottle grade PET resin also offers superior product performance – exceptional gloss, clarity and consistency – when compared to traditional PET resins.

Life Cycle Analysis

An independent **Life Cycle Analysis*** conducted for OCTAL found that when compared to PET bottle-grade resin, the production of OCTAL PET resin:

- Consumes **63% less** purchased electricity
- Uses **23% less** on-site thermal energy
- Creates a **10% lower** cradle-to-gate global warming potential compared to bottle-grade PET
- Generates a **22% lower** cradle-to-gate environmental footprint compared to bottle-grade PET



* The study conducted by **Intertek Expert Services** used CML 2 baseline 2000 methodology to compare the environmental impacts of 1 kilogram of OCTAL's PET resin made at the Salalah, Oman, facility from cradle-to-gate with traditional bottle-grade APET (including all steps up to the point of production).

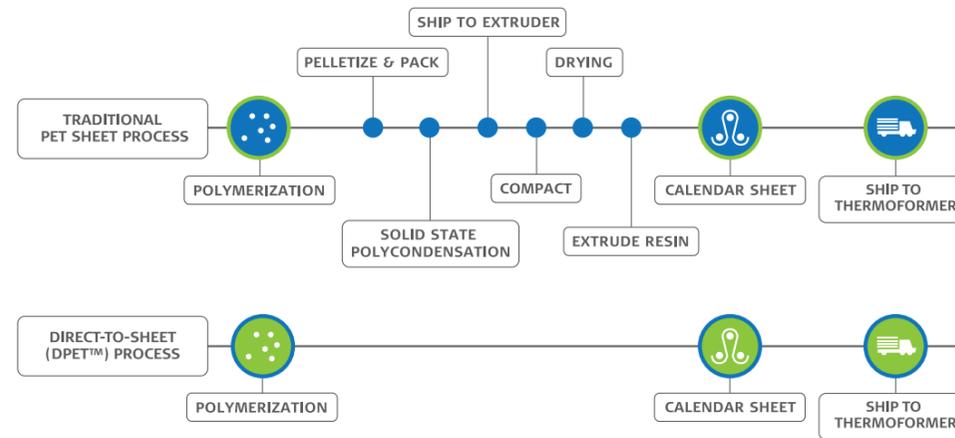
OCTAL resin is highly efficient in injection molding and extrusion applications, allowing customers to **reduce their energy use**. In addition, customers using OCTAL PET resin can operate with a faster cycle time because our spherical shaped resin allows for more even heat dissipation and eliminates surface dust formation. This allows customers to reduce their own electricity requirements and processing carbon footprint.

Carbon footprint analysis provided by Intertek Expert Services, United Kingdom.

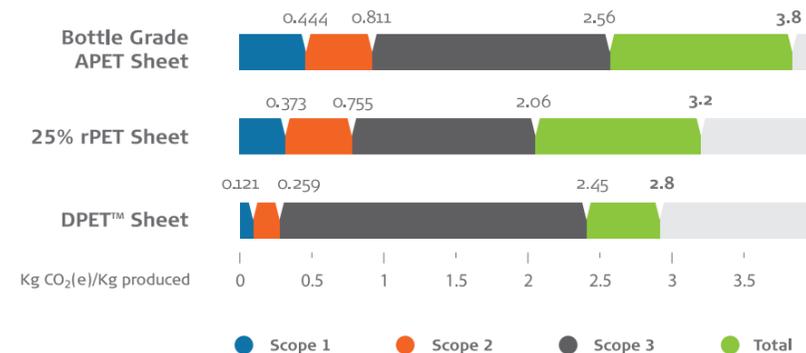
OCTAL DPET™ Sheet: Smaller Carbon Footprint

OCTAL's Direct-to-Sheet PET, or DPET™, is the first and only direct-to-sheet polyester sheet in the world. Through the use of pioneering technology, OCTAL's manufacturing process consumes less energy and creates a smaller carbon footprint than comparable products. OCTAL's unique direct-to-sheet process, eliminates five energy-intensive stages of the conventional sheet production process – pelletizer, solid state polycondensation (SSP), compactor, dryer and extruder. This dramatically decreases energy consumption while increasing efficiency. **Independent studies commissioned by OCTAL have shown that DPET™ has a significantly lower carbon footprint than competing products.**

The finished product can achieve additional environmental benefits through downgauging of up to **10%**, allowing OCTAL customers to use less DPET™ to produce an equivalent or superior product. **The post-production waste generated from DPET™ is also nonpareil, facilitating easier recycling.**



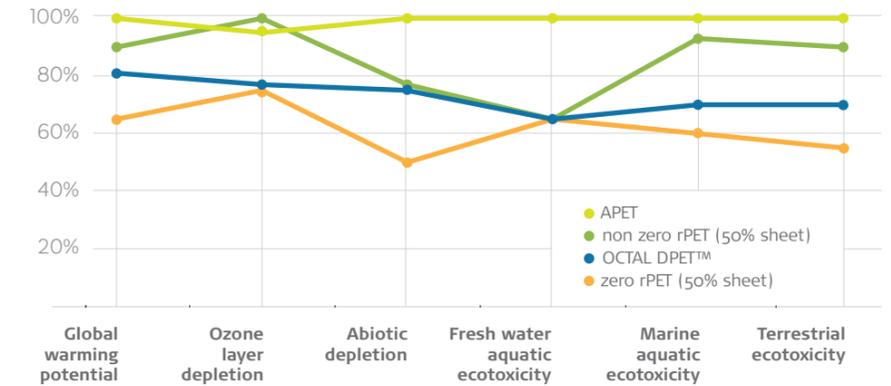
In studies conducted by **Intertek Expert Services**, OCTAL's DPET™ sheet outperformed both virgin PET and recycled PET in Scope 1, 2 and 3 emissions, making it the least carbon intensive PET sheet on the market.



Life Cycle Analysis

Results of a study* comparing different types of plastic showed that OCTAL DPET™ sheet has a lower environmental impact than APET. Specifically, when compared to the traditional APET process, DPET™ sheet:

- Consumes **65% less** purchased electricity
- Uses **28% less** on-site thermal energy
- Creates an **18% lower** global warming potential
- Generates a **30% lower** cradle-to-gate environmental footprint



* The study conducted by **Intertek Expert Services** used CML 2 baseline 2000 methodology to compare the environmental impacts of 1 kilogram of OCTAL's DPET™ sheet made at OCTAL's Salalah, Oman, facility from cradle-to-gate (including all steps up to the point of production) with traditional APET.

Understanding Greenhouse Gas Emissions

