



Carbonium®
High performance & Aesthetic Eco-sourced Material



Description

The proposed product is **100%** made of a selected **Carbon Fiber** based High performance prepreg material.

Lavoisier Composites developed a solution to recover post-production by-products while maximizing the retention of original properties.

Baseline color is black/anthracite, but it is possible to create a colored or metallized pattern inside the material.

Illustration



Overall Features

- 100% eco-sourced
- Discontinuous carbon fibers
- Adapted for extended skin contact
- Easily machinable to obtain desired geometry and surface aspect for small productions
- Moldable to net shape to eliminate machining costs for high series
- Stable and UV resistant components
- Water resistant material

Machining parameters

Carbonium® is a hard composite material formulated to withstand at least 80°C service temperature. The high carbon fiber content requires adopting special machining parameters.

Life Cycle Assessment (LCA)

No specific LCA has been made on the various variants of Carbonium® product range.

Based on a zero initial impact, as this material is recovered from a first cycle, and knowing the standard manufacturing process, it's possible to assess that Carbonium® reduces the emission of CO2 up to 20 kg for each kg used compared to a virgin-based material.



Carbonium®

High performance & Aesthetic Eco-sourced Material



Mechanical properties

A dedicated mechanical characterization is still to be made on each product variant of Carbonium®. Generic information about Carbonium® is provided in the table below based on common data available.

Properties	Values
Tensile strength (MPa)	280
Young modulus (GPa)	40
Density (g/cm³)	1,3 to 1,6

Recommendation

For any specific request, do not hesitate to contact us by e-mail at bonjour@lavoisier-composites.com
Alternatively, you can reach us via the contact page of our website:
<https://www.lavoisier-composites.com/en/contact-page/>

Disclaimer

The product data sheets and any data and specifications presented on our website or on any supports shall provide promotional and general information about the materials (the "Products") manufactured and offered by Lavoisier Composites SAS. Any illustration of the possible fields of application of the Products shall merely demonstrate the potential of these Products, but any such description does not constitute any kind of covenant whatsoever. Irrespective of any tests that Lavoisier Composites may have carried out with respect to any Product, Lavoisier Composites does not possess expertise in evaluating the suitability of its materials or Products for use in specific applications or products manufactured or offered by the customer respectively. The choice of the most suitable material depends on available chemical resistance data and practical experience, but often preliminary testing of the finished plastics part under actual service conditions (right chemical, concentration, temperature and contact time, as well as other conditions) is required to assess its final suitability for the given application. It thus remains the customer's sole responsibility to test and assess the suitability and compatibility of Lavoisier Composites' Products for its intended applications, processes and uses, and to choose those Products which according to its assessment meet the requirements applicable to the specific use of the finished product. The customer undertakes all liability in respect of the application, processing or use of the aforementioned information or product, or any consequence thereof, and shall verify its quality and other properties.