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Sustainability Profile: Algae PLA

Product Overview

Material name: Algae PLA (Polylactic Acid with algae-based bio-filler)

Origin: 50% recycled PLA derived from plant-based sources (typically corn starch or sugarcane), blended with 5–10% calcified red seaweed (Lithothamnium calcareum) from the North Sea. This marine algae naturally calcifies when it dies, forming a fine bio-mineral powder used as a natural filler.

Manufacturing location: European Union (using audited partner production facilities)

Environmental Credentials

Recycled content: 60% (percentage by weight; based on supplier material declarations)

Bio-filler content: 5–10% natural algae (Lithothamnium calcareum) from the North Sea

Recycled Material: Post-industrial recycled (PIR) material recovered from controlled manufacturing waste streams.

Carbon footprint: Slightly reduced compared to standard PLA due to partial substitution with marine-derived natural filler. Full life cycle assessment (LCA) in development.

Packaging: 100% recyclable cardboard spool; spool-less refill also available. Check local guidelines.

Shipping: Manufactured in Europe, warehoused and distributed from the UK. All non-palletised shipments use DPD’s carbon-neutral delivery service, reducing transportation emissions for UK and EU customers.

Circularity & End-of-Life

Biodegradability: PLA is technically biodegradable under industrial composting conditions (typically requires sustained temperatures of ≥55°C and specific microbial conditions). It is not home-compostable, and availability of industrial composting varies by region – please check locally.

Recycling: Fully compatible with Filamentive's PLA recycling scheme. Alternatively PLA can be mechanically recycled to produce recycled filament or upcycled into other products by the end-user.

Disposal/reuse guidance: PLA is not typically accepted in household plastic recycling. Please check local facilities or use Filamentive’s PLA recycling scheme if eligible.

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Certifications & Standards

ISO: Production partners operate under certified quality and environmental management systems (EMS) such as ISO 9001 and ISO 14001.

RoHS & REACH compliant: Free from restricted and hazardous substances, in line with UK and EU regulations

Internal testing: Every batch is tested for extrusion consistency and dimensional tolerance. Material is verified on in-house 3D printers to ensure reliable print performance and minimal variation across colours and batches.

Supporting Sustainability at Filamentive

Filamentive exists to reduce the environmental impact of 3D printing. From using **recycled materials** to offering **free recycling schemes,** we are committed to **enabling a circular economy** in additive manufacturing – without compromising on print quality.

For technical information, data sheets or sustainability queries, please contact us at: info@filamentive.com