



Bio Black

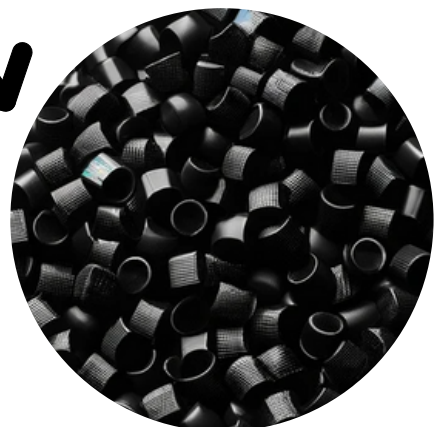
eco6® is a patented activated carbon-negative 'carbon black' made from 100% plant biochar that can be utilized as a conductive pigment or bio-based filler material, in either fossil, non-fossil or in a blended applications.

eco6® works effectively in polyethylene, polypropylene, polyester, nylon, and in many other thermoplastic polymers, thermoset polymers / resins, as well as, oil based and water based systems.

Powered by Nature

Traditional carbon black is derived from fossil fuels that emit tail gasses of H₂, CO, N₂, CO₂, hydrocarbons, nitrogen and sulfur compounds.

eco6® is a natural, plant-based, carbon-negative replacement for conventional petroleum-based Carbon Blacks, recognized by the Intergovernmental Panel on Climate Change (IPCC) as a Negative Emission Technology (NET) complete with a Cradle to Cradle Material Health Silver Certification.



Effortless Applications

When used with plastic compounds, eco6® can add value by being utilized as a thermal insulator, anti-slip agent, a reinforcing filler, coloring pigment, UV barrier, or anti-static additive. Additionally, it can be manufactured in processes such as injection and compression molding, extrusion, thermoforming, profile extrusion, etc.

As a USDA Certified Biobased Product, eco6® can be used in the production of both hybrid and totally biodegradable bio-plastics to help improve the carbon footprint of finished products.



Key Attributes

Fully traceable and verified supply chain from field to pigment

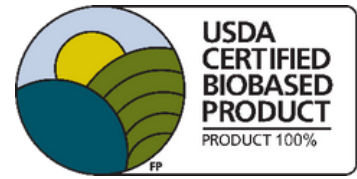
High yield and high surface area-to-weight ratio

Rich pigment color

Improved conductivity (thermal, electric and anti-static)



Industry Comparison



Traditional Carbon Black

HEMP BLACK eco6®

FEEDSTOCK

Fossil Fuels

Rapidly renewable industrial plant matter

PROCESS

Incomplete Combustion of Petroleum

Pyrolysis with thermal oxidizer; no emissions other than oxygen

ENVIRONMENTAL IMPACT

EMITS CO2

SEQUESTERS CO2



Technical Characteristics

Composition	100% Hemp Biochar / 100% Sustainable Wood Waste
Form	Powder (Other Forms Upon Request)
Particle Size	3 micron - 4 millimeter
Moisture Content	5 - 6 %
Manufacturing Guidelines	Follow normal processing to standard carbon black powder or powder form fillers.

Capacity

One pyrolysis line

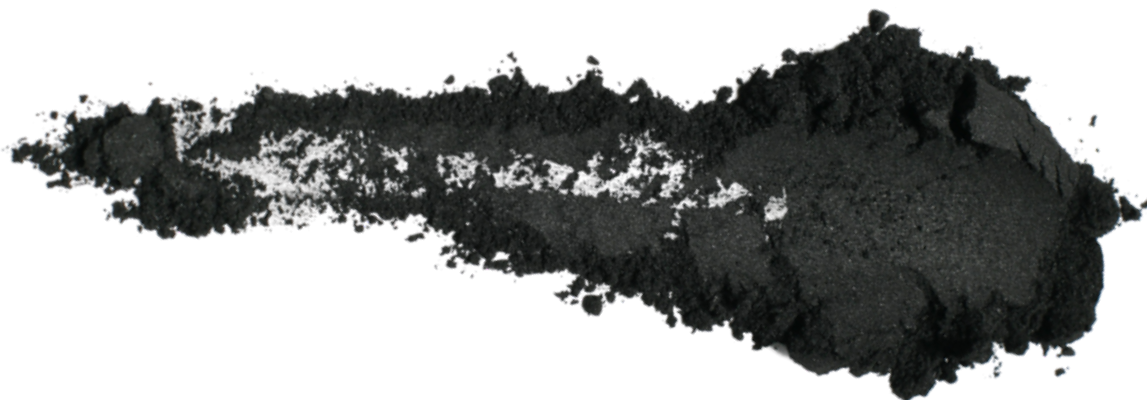
- ~700,000 kgs annually
- eco6[®] base throughput
- requires ~1,500 acres of hemp material input



Available Grades

SIZE	APPLICATION	SAMPLES AVAILABLE
3 microns	Textile grade & High Performance Fibers	3 - 4 week lead time
10 microns	Injection Molding, Rotational molding, Film blowing, Film calendaring, Lithography, Screen printing, Beauty, Thermoset composites, Elastomers and rubbers, Water-based and oil-based paints and inks	Available on Demand
45 microns	Injection molding, Compression Molding, Rotational Molding, Film Calendaring	Available on Demand
75 microns	Compression Molding & Rotational Molding	Available on Demand
3 - 4 millimeter	Fertilizer & Odor Absorber	Available on Demand

All grades are fully customizable for a wide range of applications and functions.





Application Case Studies

PLASTICS

Injection Molded PLA

eco6[®] as pigment in black PLA injection-molded consumer good.

Compression Molded HDPE & PP

eco6[®] as a filler in durable goods to achieve biobased content for federally mandated purchasing.

FOAMS

Injection Molded EVA Foam

eco6[®] as pigment in black EVA molded footwear.

INKS

Screenprinting Ink

eco6[®] as pigment in biobased black ink for screen printing on sustainably sourced apparel and vegan leather goods.

TEXTILE

Polyester, Nylon, PLA yarns

eco6[®] as a component in fiber, yarn and textile applications.