



Eco-Fabric Guide 2005



Eco-fabric contains nano-particles of bamboo charcoal in its fiber. All products that contain Eco-fabric trademark go through strict quality assurance to ensure consistent quality delivered to our valued customers.

Eco-fabric products properties:

Antibacterial and antifungal
De-odorizing
Breathable and cool
Promotes blood circulation and metabolism
Thermal regulation
Reduce static electricity
Washable
Green

www.greenyarn.com



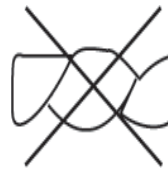
Greenyarn Eco-fabric Care:



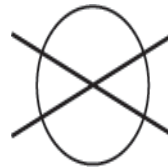
Cold machine wash in mild detergent (30°C).



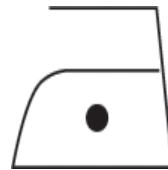
Do not bleach.



Do not wring dry.



Do not dry clean.



Do not use over 110 degrees to iron.



What is Eco-fabric?

Eco-fabric is material embedded with nano-particles of activated bamboo charcoal.

Eco-fabric's bamboo charcoal nano-particles comes from Taiwanese Moso Bamboo (*Phyllostachys heterocycla pubescens*), grown naturally in the Jhushan "Bamboo Mountain" region of Taiwan. A renewable resource, a bamboo forest regrows in 4-5 years, while a tree forest takes 60 years.



Select, 4 - 5 year old bamboo is grown naturally in Jhushan (Taiwan).



The bamboo is dried and heated at 800° C until it becomes bamboo charcoal.



The bamboo charcoal is sent for further processing to be turned into nano particles.



Ultra-fine bamboo charcoal nano particles are embedded into cotton or polyester fiber.



The fiber is then drawn into yarn, and processed into **Eco-fabric**.



Eco-fabric possesses the following advanced properties:

- De-odorizing

Bamboo-charcoal has a porous structure similar to that found in charcoal gas filters. Thus, **Eco-fabric** absorbs and decomposes benzene, phenol, methyl alcohol, and other harmful substances.

- Anti-bacterial and anti-fungal

Bamboo-charcoal retains the natural antibacterial and antifungal traits of natural bamboo. It is also a bacteriostatic material: it inhibits bacterial metabolism, and causes fewer allergic skin reaction than other fibers sterilized with antimicrobial agents.

- Breathable and dry

Bamboo-charcoal yarn has a cross-section filled with various micro-gaps and micro-holes, hence compared to other conventional fabric; it has better moisture absorption and ventilation. **Eco-fabric** products can absorb and disperse sweat fast, making them feel dry and comfortable. They also do not stick to skin on hot summer days.

- Thermal regulation

Due to the porous nature of bamboo charcoal, **Eco-fabric** products not only feel dry during hot days, but they are also excellent insulators against the cold.

- Absorption and emission of Far Infrared Energy*

Bamboo-charcoal nano particles can absorb far infrared energy from the environment, and emit it to help cell activation, promotes blood circulation and general health in the long run.

- Prevent static electricity buildup

As bamboo-charcoal nano particles are conductive, their presence in the fiber helps **Eco-fabric** prevent charge buildup. As a result, a wearer of **Eco-fabric** products will not experience static shocks even in dry conditions.



- Green

Using **Eco-fabric** is not made with harmful chemicals, and so causes few if any allergic reactions.

- Wash Durable

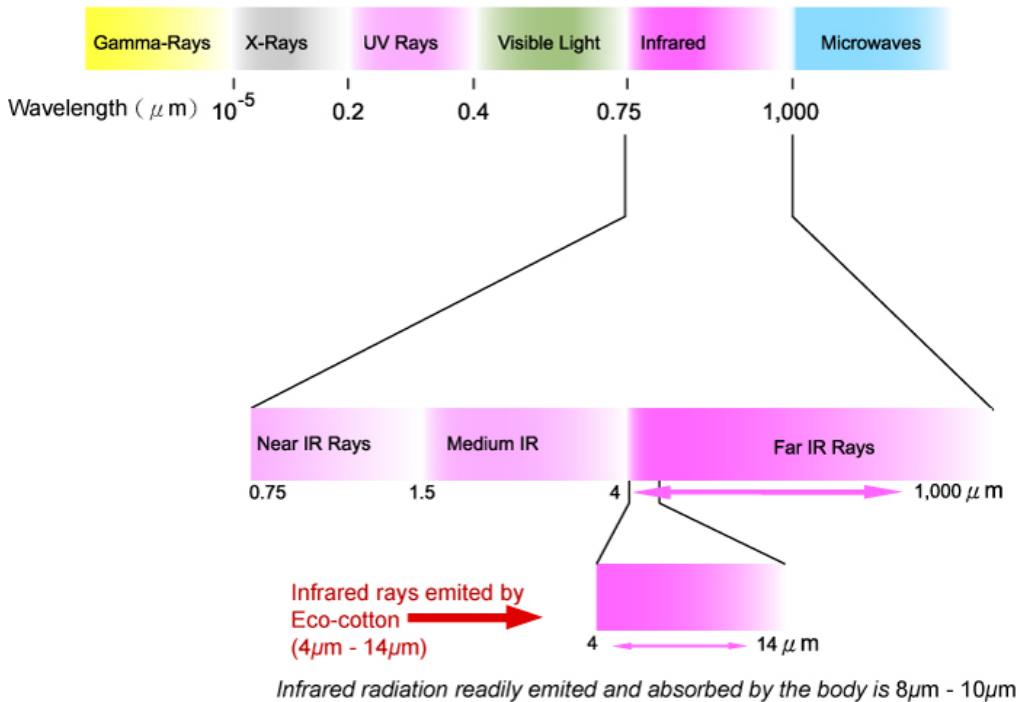
As the bamboo-charcoal nano particles are embedded in the fabric rather than simply coated on their surface, **Eco-fabric** is washable without diminished effectiveness of the charcoal powder's special qualities, even after 50 washes.

*The active ingredients will last for 2 years in packaging or 6 months with usage.



What is Far infrared energy?

Far-infrared energy penetrates beyond the skin level and is absorbed efficiently by cells below. Near-infrared is mostly absorbed at the skin level and raises the skin temperature. Far-infrared can penetrate up to 4 centimetres (about 1-1/2 inches), exciting the vibrational energy of molecules and resonating with cellular frequencies - as a result, FIR rays promote bioprocesses such as increased metabolism and blood circulation.



Far Infrared energy can:

- Help improve blood circulation
- Improve metabolism
- Increase cell activation
- Activates water molecules in the body
- Improve oxygen level in the body
- Warming and eliminating fats, chemicals and toxins from blood and thus smoothening the flow of blood.
- Reducing the acidic level in the body
- Improve nervous system



Information on Eco-fabric yarn:

Eco-fabric yarn should not be dyed as dyeing will affect the properties of Eco-fabric. It can be however, combined with other fibers for color combinations.

Eco-fabric yarn can be used in a circular knitting machine, or warp knitting machine.

The test reports for Eco-fabric products are done of 78% Eco-fabric yarn in the fabric. For applications where the properties of Eco-fabric is important, we would advice the product contain at least 70% of Eco-fabric yarn.