



F01-15A, Feng Lin Lv Zhou, Datun Road, ChaoYang District, Beijing, P.R China
Http:// www.bambrotex.com TEL: 86-10-64867890 FAX: 86-10-64844812

Bamboo fiber from Bambrotex

➤ ***Material for bamboo fiber***

The material of bamboo fiber is from bamboo which is harvested from wild farm. And the bamboo is not used any chemical weeding, insecticides, fungicide in it growing. Bamboo is not irrigation. Bamboo grows in a nature environment and no polluted. We harvest about 2 year's old bamboo.

➤ ***Bamboo fiber production line***

Our products is made of 100% bamboo, the green bamboos are used to produce natural and eco-friendly fiber without any chemical additive.

Bamboo fiber is a regenerative cellulose fiber. It is a natural, green, environmental protection raw material for spinning and it is outstanding in intension, spinnability.

Process of production

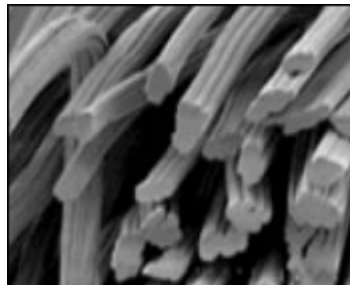
Bamboo---Cutting material---washing material---Braizing---Bleaching---Smashing---Etiolating---Filtrating---Filaturing---Binding---Cutting Fiber---Drying---Packing

During the process of hydrolysis-alkalization & multiphase bleaching, no harmful chemicals are used.

➤ ***Bamboo fiber property***

- ✧ Outstanding in moisture absorption and releasing, breathable

Cross section of the bamboo fiber



Because the cross-section of the bamboo fiber is filled with various micro-gaps and micro-holes, it has much better moisture absorption and ventilation. With this unparalleled micro-structure, bamboo fiber apparel can absorb and evaporate humans sweat in a split second.

- ◇ Natural antibacterial and bacteriostatic, deodorization and ultraviolet-proof
- ◇ Fine spinnability, dyeing color pure and bright
- ◇ Fell soft, close-fitting, outstanding indrapability
- ◇ These bamboo fiber characteristics have been attested by some international organizes such as OEKO.



➤ **Physical Parameters Compared With Other Fibers**

| | Bamboo fiber | Viscose fiber | Cotton fiber |
|---|----------------------|----------------------|-----------------|
| Linear density (dtex) | 1.67 | 1.67 | 1.5~1.7 |
| Single dry tensile strength (cN/dtex) | 2.2~2.5 | 2.5~3.1 | 2.5~3.1 |
| Single wet tensile strength (cN/dtex) | 1.3~1.7 | 1.4~2.0 | 1.5~2.1 |
| Dry tensile elongation percentage % | 14~18 | 18~22 | 8~10 |
| Moisture regain % | 13 | 13 | 8.5 |
| Absorbency rates % | 90~120 | 90~110 | 45~60 |
| Specific density (g/cm ³) | 1.32 | 1.32 | 1.5~1.6 |
| Double length (mg/100g) | 1.2 | 1.2 | / |
| Mass specific resistance /Ω.g. cm ⁻² | 1.09x10 ⁸ | 2.29x10 ⁷ | 10 ⁸ |

➤ **The specification of bamboo fiber**

For bamboo fiber our current type are 1.56dtexx38mm and 1.33dtexx38mm.

For 1.33dtexx38mm bamboo fiber (for reference)

Testing condition: Temperature : 20°C Relative humidity: 65%

| Item | Reference data |
|--|----------------|
| Dry tensile strength (cN/tex) | 2.30 |
| Wet tensile strength (cN/tex) | 1.31 |
| Dry elongation at break (%) | 23.2 |
| Linear density percentage of deviation (%) | -1.91 |
| Percentage of length deviation (%) | -2.01 |
| Over length staple fiber (%) | 0.50 |
| Over cut fiber(mg/100g) | 3.30 |
| Residual sulfur(mg/100g) | 11.2 |
| Defect(mg/100g) | 3.00 |
| Oil-stained fiber(mg/100g) | 0 |
| Coefficient of dry tenacity variation (CV) (%) | 13.77 |
| Whiteness (%) | 67.60 |
| Oil content (%) | 0.21 |
| Moisture regain (%) | 13.38 |
| Rate | Grade A |

For 1.56dtexx38mm bamboo fiber (for reference)

Testing condition: Temperature : 20°C Relative humidity: 65%

| Item | Reference data |
|---|----------------|
| Dry tensile strength (cN/tex) | 2.28 |
| Wet tensile strength (cN/tex) | 1.32 |
| Dry elongation at break (%) | 23.8 |
| Linear density percentage of deviation (%) | -1.80 |
| Percentage of length deviation (%) | -1.80 |
| Over length staple fiber (%) | 0.50 |
| Over cut fiber(mg/100g) | 3.60 |
| Residual sulfur(mg/100g) | 11.2 |
| Defect(mg/100g) | 3.20 |
| Oil-stained fiber(mg/100g) | 0 |
| Coefficient of dry tenacity variation (CV)(%) | 13.07 |
| Whiteness (%) | 67.20 |
| Oil content (%) | 0.20 |
| Moisture regain (%) | 13.03 |
| Rate | Grade A |

The 1.56dtexx38mm and 1.33dtexx38mm bamboo fiber is bright staple fiber from China Bambrotex.