Analysis on the Origin and Certification of Green Fiber

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Origin of Green Fiber

• “Green development” is a basic principle and a key project for the “Made in China 2025”.

• “Supporting clean production, boosting the updating of traditional manufacturing industries and pushing forward the establishment of an industrial system geared toward green, low-carbon, and circular development” are major tasks during the period of the 13th Five-year Plan and in a long period in the future.

• China’s chemical fiber industry has entered into a critical period of transformation and upgrading. The development concept learnt as Green and Environment-friendly is not only a key factor for China to build up a new image of major textile and chemical fiber country, but also a requirement for enterprises to find a foothold in the industry.

• Chemical fiber is a source for the textile industrial chain, so the progress of its green development is of great significance to the sustained development of the textile industry or even the whole society.

• The setting of the Green Fiber logo aims to advocate green design, green materials and green manufacturing and promote environmental protection and public health, so as to realize double targets learnt as the development of enterprises and their undertaking of social responsibilities.
Origin of Green Fiber

- **China Chemical Fibers Association (CCFA) and Textile and Chemical Fiber Products Development Center (TCFPDC)** joined to build a logo for Green Fiber brand.

- Regulate the market by means of the third-party certification and management

- Further inspire enterprises to develop green fibers

- Improve the social cognition over green fibers and the public trust in related products.

- Effectively lift up the competitiveness of enterprises and their products in domestic and overseas markets.

The Green Fiber Certification Logo has been registered in the State Administration for Industry & Commerce of the People’s Republic of China, and CCFA, as the possessor of this Logo, owns the exclusive trademark right of the Green Fiber Logo.
What is Green Fiber?

- Green Fiber refers to chemical fibers coming from biomass or recoverable raw materials through low-carbon and environment-friendly production processes, with finished products bringing no pollution to the environment after being thrown away or being able to be recycled.

“Green Fiber”

- Recycled fiber
- Bio-based fiber
- Dope-dyed fiber
What is Green Fiber?

- When each ton of fiber is processed into textiles, the emission of waste water and CO₂ will be cut down by 32 tons and 1.2 tons respectively, while the consumption of electrical power and steam will be reduced by 230KWh and 3.5m³ respectively.

- Fabrics made from dope-dyed fiber can save 30-50% of costs per ton compared with those experiencing dyeing and finishing. (Each ton of fabric with medium-depth color can save 11 thousand kwh of power, 100 tons of water and 150 kg of dye-stuff)

- Twenty 500-ml PET bottles can be used to make one coat, five 2L PET bottles can be used to make 0.09 square meters of carpet, and thirty five 2L PET bottle can be used to make fiberfill enough for one sleeping bag.

- When one ton of recycled polyester fiber is produced, the emission of CO₂ can be cut down by 3.2 tons. One ton of post-consumer PET bottles can produce about 0.9 ton of recycled polyester fiber, and save 6 tons of crude oil and 3m³ of landfill space.
Enterprises registered according to the law in the People’s Republic of China, having the capability to undertake civil liabilities independently and taking up production and operating activities of chemical fiber products, can apply to CCFA for the use of the Green Fiber logo. The Management Rules (Interim) for Downstream Users of Green Fiber Logo will be carried out when downstream users of green fiber-producing enterprises apply to use the Green Fiber logo.

Application fields of “Green Fiber” logo

- Fiber
- Yarn
- Fabric
- Garment
- Hometextile
- Technical textiles
- Brand
- Retail
Conditions of applying for the certification of Green Fiber

- Enterprises applying to use the Green Fiber logo need the following conditions:

  1. More than two consecutive years of production and operation;

  2. ISO 9001 quality management system certification and ISO14001 environment management system certificated;

  3. Possessing effective after-sale service system;

  4. Owning advanced production process and perfect testing methods as well as healthy and safe working environment;

  5. Strictly abiding by related laws and regulations of China and ensuring that the employees are able to enjoy legal rights, labor income and welfare benefits according to the state stipulations;

  6. Valuing the intellectual property rights and consumers’ rights and interests, regarding honesty as foundation and upholding a fair competition-based market order.
Conditions of applying for the certification of Green Fiber

• Products using the Green Fiber logo need the following conditions:

  1. The purchase of raw materials and auxiliary materials for the production of green fiber products must refer to the requirement from the Green Purchase Regulations for Recycled Chemical Fiber (Polyester) Industry (T/CCFA 00006-2016);

  2. The energy consumption, material consumption, water consumption, the reuse ratio of process water, and the index for the emission of waster water, tail-gas and residue must reach the requirement of the second grade or above of the Clean Production Assessment Indicator System;

  3. Products with Green Fiber logo are medium-to-high level products, and the quality characteristics must be in line with the regulations of the Assessment System (Interim) for Products with Green Fiber Logo as well as the related standards of the state, the industry and the association.
Conditions of applying for the certification of Green Fiber

- Product performance index:

  1. Bio-based fiber (tenacity at break, elongation at break and the index of some special properties)

  2. Recycled chemical fiber: Down-like fiber (linear density deviation, length deviation and defect content)

     Two-dimensional/three-dimensional hollow fiber (hollow ratio, defect content and elastic resilience)

     Cotton-type/wool-type fiber (fiber linear density, tenacity at break, elongation at break)

     Filament (linear density deviation, tenacity at break and elongation at break)

  3. Dope-dyed chemical fiber (tenacity at break, hot air shrinkage and color fastness)
Conditions of applying for the certification of Green Fiber

- **Resource consumption:**
  - Intake quantity of fresh water per unit product
  - Power consumption per unit product
  - Coal (gas) consumption per unit product
  - Steam consumption per unit product
  - Comprehensive energy consumption per unit product
  - Raw material consumption per unit product
  - Process water reuse rate

- **Environment management:**
  - Whether ISO14001 environment management certification is passed
  - Whether energy audit is carried out according to related stipulation
  - Whether clean production audit is carried out
  - Whether energy management and environmental protection institutions are set up
  - Whether energy-saving and environmental management supervision system is set up
  - Whether pollutant treatment facility is completed in line with main part of the project
  - Whether environmental management system and emergency handling system is built
  - Pollution emission declaration and payment for pollutant discharge
Conditions of applying for the certification of Green Fiber

• **Quality management:** Whether ISO9001 quality management system certification is passed
  Whether quality management supervision system is set up
  Whether special institutions or staffs are appointed
  Whether three-grade metering management is implemented

• **Safety and occupational health:**
  Whether responsibility system for production safety is set up, including regulations and operating instruction for safety production.
  Whether abide by the regulations related to the Permits for the Safe Use of Hazardous Chemicals, and whether emergency response plan exists

• **Social responsibility:**
  Whether join endowment, unemployment, medical and employment injury insurances and pay related insurance fees in full for employees.
  Whether possess occupational health safety management system certificate and social insurance payment certificate.
Procedure of applying for the certification of Green Fiber

Enterprise application

- Formal examination
- Applied product inspection
- On-site verification

GF Logo Management Committee

- Unqualified
- Acquire certificate

- Qualified
- Sign agreement

End
Application for certification: Enterprises applying to use the Green Fiber logo need to put forward the application to CCFA and fill out Green Fiber Logo Certification Application Form.

Formal examination: The office of Green Fiber Logo Management Committee (hereinafter called the Office) will implement formal examination, and only qualified enterprises are accepted.

Product inspection: Seeing no error after checking related materials, CCFA will appoint the third party inspection institutions to implement inspection on applied products as well as the raw materials and auxiliary materials according to the related standards of the state, the industry or the association. If the enterprises have passed the inspection of the third party inspection institutions accepted by CCFA, there is no need to have repeated inspection.

On-site verification: Three to five experts from the Office will go to enterprises to conduct on-site verification and have comprehensive evaluation about the actual situations like the source of raw materials, the process of production, the development of new products, laboratory equipment allocation, quality management and marketing system.
Procedure of applying for the certification of Green Fiber

- **General review**: If the enterprises pass formal examination, production inspection and on-spot verification, the Office will put forward the inspection reports and attachments to the Green Fiber Logo Management Committee for general review.

- **Written notice**: The Office will send the conclusion of the general review to application enterprises and inform qualified enterprises to complete the following formalities: 1. Sign Green Fiber Logo Usage Agreement; 2. Pay certification fees; 3. Get the Certificate of Green Fiber; 4. Buy Green Fiber logo in related forms.

- **Product certification**: After enterprises pay the certification management fees, CCFA and TCFPDC will award the certificates with a valid period of three years. A review will be implemented each year to confirm whether the content of the certificate is still effective or not.
Procedure of applying for the certification of Green Fiber

- **Input of serial number:** Enterprises and their products passing the certification will have a particular serial number which will be input into the Green Fiber Logo Certification Database of [http://www.ccfa.com.cn](http://www.ccfa.com.cn), an official webside of CCFA, and people can distinguish directly between truth and falsehood of certified information through the two-dimension code on the Green Fiber logo.
Procedure of applying for the certification of Green Fiber

- **Forms and contents of certified logo:**

  The forms include hangtag, packaging container, packaging bag, packaging film and so on. The contents consist of the design of Green Fiber logo, the names of certification institutions (CCFA and TCFPDC), product category (bio-based fiber, recycled fiber or dope-dyed fiber), valid period of certification and two-dimension code.
Rights and obligations after passing Green Fiber certification

- **Rights:** 1. Products with Green Fiber logo have the right to use this logo under legal protection when are involved in selling activities.

2. Green Fiber logo can be used by enterprises as a product certificate in business and trade activities in China and abroad.

3. Enterprises using Green Fiber logo can enjoy the preferential right in taking part in professional conferences and exhibitions sponsored or co-sponsored by CCFA as well as technic informations exchange and consulting service activities.

4. Enterprises using Green Fiber logo can enjoy the media resources of CCFA, and can publicize and promote their products through the magazines, websites, Mobile Newspapers and wechat of CCFA.
Rights and obligations after passing Green Fiber certification

• Obligations:

1. Products using the Green Fiber logo must be in line with those to be certified. Enterprises need to apply for certification once again if they want to change the categories and varieties of products that will use the Green Fiber logo.

2. Enterprises using the Green Fiber logo must arrange production and testing for certified products according to related standards of the state, the industry and the association as well as the rules in the Green Fiber Logo Usage and Management Regulations.

3. Enterprises using the Green Fiber logo must accept the irregular sampling inspection of the Green Fiber Logo Management Committee, with the fees paid by CCFA itself. The single content or multiple contents to be inspected include the purchase of raw materials and auxiliary materials, production process, quality assurance system, environmental protection system, research & development & design, testing and marketing system.

4. Enterprises using the Green Fiber logo must cooperate with distributors to do after-sale services well.
Rights and obligations after passing Green Fiber certification

• Obligations:

5. Enterprises using the Green Fiber logo should cooperate actively with the Green Fiber Logo Management Committee to propagandize the products with the logo and boost the popularity.

6. Enterprises using the Green Fiber logo should appoint full-time staffs or set up special institutions to be in charge of the safekeeping and use of the logo. The appointed full-time staffs must be put on record of the Green Fiber Logo Management Committee. Meanwhile, entrusted by the Green Fiber Logo Management Committee, the full-time staffs should supervise the use of the Green Fiber logo of their own enterprises.

7. Enterprises using the Green Fiber logo are not allowed to make the Green Fiber logo in any form privately and cannot transfer, sell or present the Green Fiber logo. CCFA will pursue the corresponding legal responsibilities and has the right to unilaterally terminate the use of the Green Fiber logo if enterprises make illegal use.
Thank you!