

Red Fiber Group

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FINEBER

Fine Your Life.

Fast fashion, convenient e-commerce and on-line shopping, impulse spending... bring about a great quantity of old clothes garbage that has inundated and polluted our living environment. Although the environmental awareness is on the rise, and people start to attach importance to the disaster caused by fashion, this hope is too weak to change people's action towards environment protection, more exactly, there is lack of good method, and people are bewildered between sense and sensibility...

The innovative FINEBER regenerated yarn from RED FIBER finally brings us a glimmer of hope!

Different from the textile raw materials that are recycled and regenerated from PET bottle, the high-quality fiber which can be recycled and reused infinitely is made from the polyester fiber by virtue of the innovative degradation technology.

The sustainable fiber, further than that recycled and regenerated, not only enable us to pursuit the fashion life, but also take into account the eco-friendly actions. There is no sense of guilt for consumption, but more positive cycles of waste processing.

The goal of our efforts is to make FINEBER regenerated yarn surpassing FIBER and better than FIBER, to bring the energy of sustainable environment, to start with your needs, to create what you desire, and to realize the beautiful vision for living with the earth.



Go with FINEBER, Everything will be Fine.

Do Not Hold Back the Bright Future

Dilemma Between Environmental Protection and Humanity

As the fashion industry leader and trendsetter, the textile industry, under the continuous innovation of production technology, accelerates the creativity and productivity of clothing brand owners, and greatly shortens the production time of goods, thus driving the consumption trend of fast fashion, and promoting the continuous outbreak of human desire for fashion.

The study found that a dress can be worn more than 200 times in the past, but now it's less than 150 times. In order to consistently meet the demand of consumers and market, more waste ready-to-wear clothes have been made virtually. So far, there are up to 40 million tons of waste clothes each year in the world, but only 16% of which are recycled or reused.

In the past, these old clothes can enter the secondary market for reorganization and resell, or be sent to third world countries as humanitarian aid. However, with the rise of global environmental awareness and the ban on wastes issued by many countries, the disposal of waste clothes becomes a secret black hole, and these clothes silently enter the landfills or incinerators, indirectly causing the intensified global warming, ecology affected by marine waste plastics, and even great calamity resulting from extreme climates... The textile industry is thus blamed as the second largest pollution industry in the world, also becomes the burden of the earth as well as the environmental challenge.

After initiation of future development plan on sustainable economy, environment and society by the United Nations in recent years, the textile industry has also strengthened the research on recyclable and regenerative raw materials step by step, attempting to put an end to the regret of “fashion in last minute, disaster in next minute” and avoid endangering our next generation. But as to how to help consumers return to a healthier consumption and fashion attitude through efforts of the government and industry, it is may be another problem that needs to be overcome urgently.



Pursue the Perfect Clothing Forever

Trend and Challenge of Environmental-friendly Yarn

Whether the biomass material of organic plant or friendly animal, or the petrochemical nylon and other chemical fibers, are all in line with the mainstream of global green cloth materials. However, in view of most recyclable, recoverable and regenerative material with most environmental contribution in reducing pollution, the polyester fiber environmental-friendly yarn must be the champion. The polyester fiber extracted from raw petroleum is characterized as high reconfigurability and plasticity. It has not only become the most widely-used raw material in life, but also the important material which is most widely developed and used in textile industry. Although its non-natural degradation characteristics has caused certain environmental problems in the past, with continuous improvement on research and development technology in recent ten years, there are advanced technology and process to recycle and regenerate all trimmings, offcuts, PET bottle compression clothes produced by clothing manufacturing or all kinds of clothing in blends with polyester fiber, so as to solve many people's doubts on polyester fiber.

In spite of constant breakthroughs of recovery and regeneration technology, the polyester fiber is still facing a major challenge. Take PET bottle yarn with most mature regeneration technology of the industry as well as most complete recovery system as an example, only one-time regeneration and use can be achieved at present. Along with water and energy consumed in the process of discoloration, washing and melting, the sustainable economy with infinite closed circulation shall be achieved from manufacturing, use and consumption to recovery and regeneration, meanwhile, the consumer fashion life demand and earth eco-friendly mission shall be taken into account. The forever pursuit of perfect clothing still needs the effort in the last mile.

Love the Earth Starting from Clothing Material Selection

ECO-CIRCLE Polyester Fiber Industry Chain

In order to break through the bottleneck of one-time regeneration and use of PET bottle yarn produced by the physical degradation technology, we have gradually developed the innovative degradation technology since 2002, that is, place the recycled PET bottle and polyester fiber waste clothes into the high-pressure closed tank under temperature control of precision computer, and make them into the high-quality long-chain/short-chain polyester fiber through complete burning at high temperature, thus producing the perfect fiber raw material of infinite recycling and reuse.

Meanwhile, the “Certification system of ECO-CIRCLE Sustainable Environmental-friendly Yarn” is issued in a leading position.

The complete environmental protection industry chain of upstream, middle and downstream manufacturers are fully integrated from raw material production, cloth manufacturing, clothing sales, recycling and regeneration.

Since 2012, there have been over 150 third-party manufacturers participating in the service of waste clothing recovery and supply, even involving FINEBER regenerated yarn which has been put into mass production in recent years and favored by major clothing brand owners all over the world!

In the future, Taiwan RED FIBER hopes to cooperate with the partners at every link to “Love the Earth Starting from Clothing Material Selection”, work together to create a perfect closed sustainable economy, and promote corporate profits, social responsibility and brand value.

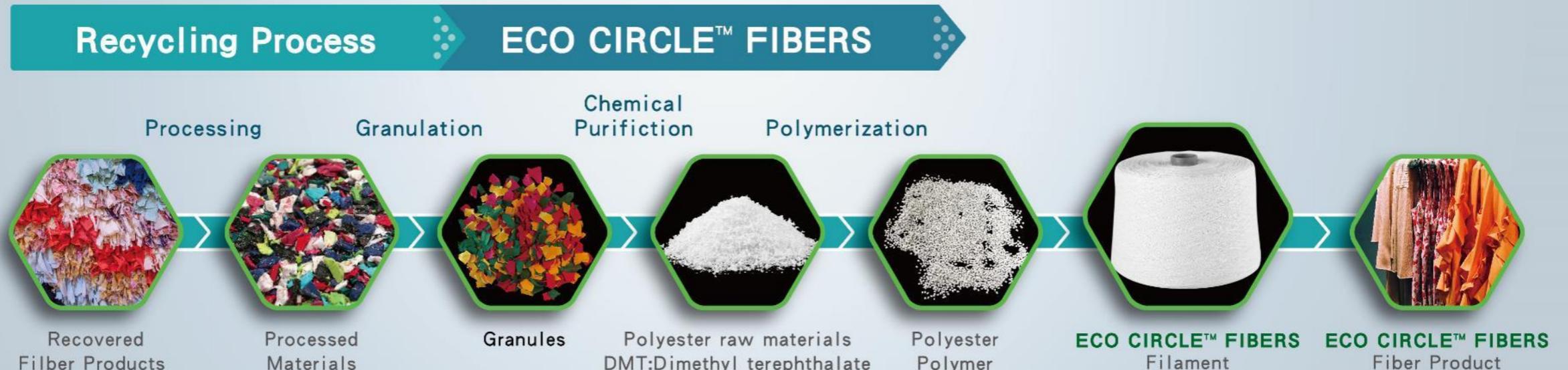


Last Mile of Sustainable Regeneration

Key Technology of Regenerated Yarn

In order to construct a sustainable green eco-fashion industry and eliminate the influence on earth ecology and climate warming, there are different system certification and development directions for each textile country and organization in the world. "Certification System of ECO-CIRCLE Sustainable Environmental-friendly Yarn" is one of few non-physical innovative degradation technologies, which can produce high-quality polyester fiber which can be recycled, regenerated, and used infinitely, truly achieving the forever use of fiber and reaching the last mile of sustainable environmental protection.

The regenerated yarn is produced by Taiwan RED FIBER in cooperation with international technical partners, who is the most important supplier of recycled and regenerated polyester granules in ECO-CIRCLE industrial chain. It adopts the innovative degradation technology by using computer to precisely control the high temperature and high pressure, breaks through the bottleneck of one-time regeneration of PET bottle yarn, and invents the key technology of infinite recycling and regeneration of polyester fiber.



Degradation Process and Key Technology of FINEBER Regenerated Yarn

- Recycled waste clothes, waste trimmings and offcuts containing polyester fiber are broken into fragments. Additives, colorants and other ingredients are separated.
- The fragments are placed into the high-pressure closed tank under temperature control of precision computer, then completely burned at high temperature and recovered to high-purity raw PTA polyester granules. They are polymerized into polyester fiber again, and the yarn is drawn out to make new ready-to-wear clothes.

Waste Less, Enjoy Better

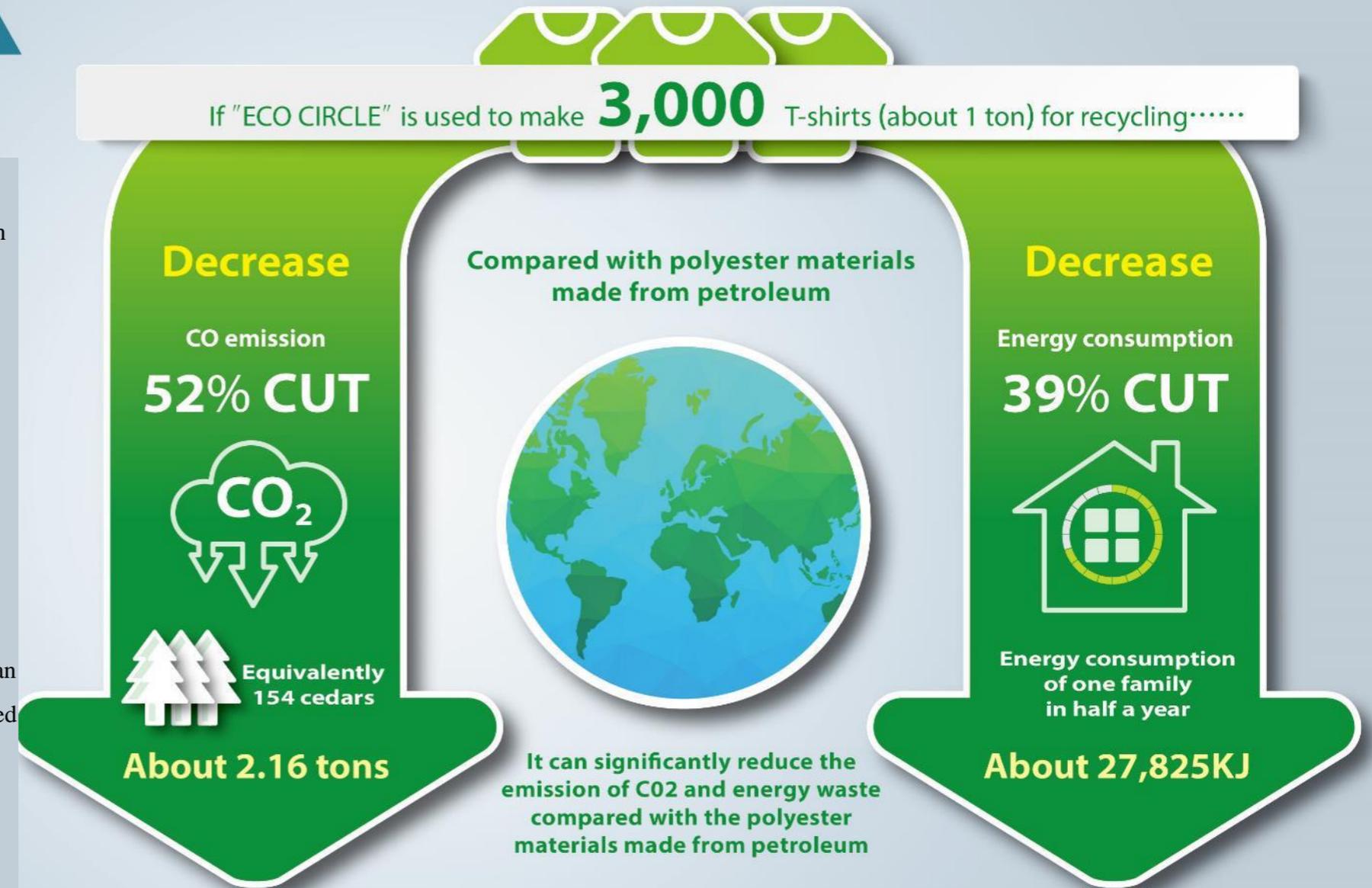
New Healthy Choice of Energy Conservation and Carbon Reduction

Faced with the impact of global warming, environmental-friendly yarn not only meet the interests of waste reduction and reuse, but also reduce the waste of water resources by low-volume washing and chemical decolorization of FINEBER regenerated yarn. Meanwhile, the regeneration process is completed in a closed pressure furnace, effectively reducing carbon dioxide emission, and the hot gas can be recycled as energy source to drive machine. Compared with polyester fiber made from primary petroleum or environmental-friendly yarn made from PET bottle, the highest environmental protection benefits of energy saving, carbon reduction and pollution reduction can be achieved from regeneration to raw materials and finished products.

In addition, FINEBER regenerated yarn is completely burned by high temperature and breaks chain in a high-pressure closed slot temperature-controlled by precise computer. It can completely burn and remove the dyed and processed impurities and contaminants on waste clothes and leave polyester granules with highest purity, avoiding the hazards of allergies or toxic substances and bringing the wearing experience with most health concept.

FINEBER Regenerated Yarn - Healthiest Environmental-friendly Yarn

(Use "ECO CIRCLE" to make 3,000 T-shirts (about 1 ton) for recycling V.S Same quantity of polyester fiber clothing made from petroleum)



Decrease carbon dioxide emission by 52%.

Decrease thermal efficiency energy consumption by 39%
Burn all impurities and contaminants at high temperature to avoid the hazards of and toxic substances

Comparable with the purity of primary petrochemical fibers, long and short chain polyester fibers with best quality

More options for recycling

From designated recycling to on-line reservation recycling

For the promotion of sustainable environmental-friendly yarn, in addition to the continuous breakthroughs and innovations in back-end production technology, the construction of front-end waste clothing recycling system is the key to success.

At present, our recycling system not only recycles donation assisted with household volunteers who identify concern environmental protection, co-branding distributors and relevant public welfare organizations, but also cooperates with traditional designated recycling stations to help second-hand recycling distributors whose livelihoods are affected by the ban of abolition in various countries around the world. Meanwhile, the government agencies also provide support by periodically and spontaneously recycling obsolete uniforms, public goods and individual polyester fiber waste.

To encourage more people to engage in environmental-friendly recycling of old clothes, and in response to different living habits and needs, in the future, we will set up on-line reservation service for door-to-door recycling - the recycling system network will be more comprehensive and perfect for reducing waste and contributing more to the protection of earth.

RED FIBER environmental recycling system network program



At present, the annual processing of waste clothing has reached thousands of tons.

According to the statistics, the annual quantity of wasted textiles generated more than 24 million tons among which less than 0.03% is recycled. If they are incinerated after being abandoned as garbage, the process not only consumes coals, electricity and other energy but also produces large amounts of pollutants including carbon dioxide, ashes and so on. If they are landfilled, the process not only occupies land but also generates hazardous substances to pollute water and soil. The regeneration and recycling of old clothes could reduce the fabric garbage, realizing a reduction of domestic garbage.

- Voluntary donations from households •Raised by public welfare groups
- Brand partner distribution points •Designated recycling stations of second-hand recycler
- Obsolete uniforms and public goods form government agencies
- On-line reservation service for door-to-door recycling

New attitude towards Eco-Fashion

Application and prospect of regenerated yarn

FI NEBER regenerated yarn with RED FIBER and ECO-CIRCLE advanced technology is a high-quality polyester fiber which can be recycled and reused infinitely. It not only has the most energy-saving, carbon-reducing and pollution-reducing environmental protection benefits in all manufacture procedures of green textile industry, but also can regenerate high-purity healthy fibers avoiding allergic hazards through the innovative degradation technology of burning hazardous substances under high temperature and pressure, bringing a bright and sustainable future for the whole world.

Perfectly realize the closed circular sustainable economy ecology system, maximizing economic scale and benefits for production, sales, consumption, recycling and regeneration and other polyester fiber industry chains. Looking forward to the future, we welcome more partners to join the ECO-CIRCLE industry chain of FINEBER regenerated yarn, to enhance corporate social responsibility, promote brand preference and value, and even develop more marketing operation modes in the innovative sales mode of shared economy.

Future commercial applications and potential benefits of regenerated yarn

- Comparable with the perfect quality of primary petrochemical high-purity fibers for improving the efficiency of products and expanding application scope.
- The innovative degradation process under high temperature and pressure can completely burn harmful substances and use raw materials of polyester fibers with health concept.
- Improving the recycling system can not only reduce waste in an all-round way, but also improve production capacity, reduce costs and achieve the best economic scale.
- Closed circular economy ecology will realize innovative sales operation mode with lease as substitute for purchase
- Build corporate social responsibility and improve brand preference and value

