

## CARDATO REGENERATED CO2 NEUTRAL

### EXECUTIVE SUMMARY

The recycling of wool, feature upon which the Prato textile industry of Italy was founded, is being again adopted for its sustainability, to eliminate or reduce the carbon footprints of the production process. This fundamental development in the Prato textile industry was the introduction in the mid-19th century of the process of regeneration of textile remnants, knitwear and second hand clothing. Imported from all over the world, these materials were carefully selected and mechanically transformed into regenerated wool which was then used to produce textiles at competitive prices. Today building on the same tradition, supported by the Prato chamber of commerce, the new brand 'cardato regenerated CO2 Neutral' will certify the elimination of the carbon footprint of the production process as well as the use of recycled raw materials. Certain criteria is required to receive certification of the carded fiber-the fabric must be produced in Prato and made of at least 70% of recycled.

Eliminating the carbon footprint of the textile production process, and at the same time certifying the use of regenerated raw materials is the dual nature of the new brand, Cardato Regenerated CO<sub>2</sub> neutral, certified by the Prato Chamber of Commerce. The Cardato Regenerated CO<sub>2</sub> neutral brand, was created to offer leaders in the fashion market an eco-friendly product: one that is comfortable to wear and one that respects the environment. This is exactly what Cardato is: a versatile wool fabric that can be used in a variety of ways. Made from recycled textiles, it has a very limited impact on the environment because it balances CO<sub>2</sub> emissions in all phases of production.

Cardato regenerated co2 neutral is the world's first certified 'zero emissions' textile product. It is made with recycled wool from the Prato District and has limited impact on the environment. Carbon emissions are calculated and then offset through the purchase of green credits.

The main idea is this one:

- 1) If a factory produce carbon dioxide and pollutes the earth's atmosphere, in theory, that factory must buy the same (or more) quantity of credits in order to offset and compensate for its carbon dioxide emissions.
- 2) These credits (which are sold by those who provide carbon credits – a bone fide "ecobroker") are used to cover the cost of tree and forest replantation (trees absorb carbon dioxide) and the cost of other eco-friendly programs.
- 3) Buying carbon credits is easy and and incredibly efficient. When the quantity of your carbon dioxide emission is completely offset by the carbon credit you purchase, you become "carbon-neutral".

Every year in Prato are regenerated 22.000 tons of clothes that are worked with special process that you can find only in this area. These clothes are frazzled are recycled like fibres for the carded spinning, that it has the peculiarity to work only short fibres. Yarns are used to make fabrics wool mixed dyed and finished in Prato. Starting from a raw material that is not new but regenerated we've got a bonus of Co2 that we can spend on the rest of production. After every phase of production is made only on Prato's district so there's no other emissions for transport (for example trucks)

TUV checks step by step all the production process and at the end calculate the emission of Co<sub>2</sub> for each meter of fabric.

## **1. DESCRIBE HOW YOUR PROJECT ORIGINATED**

"Cardato Regenerated CO<sub>2</sub> neutral" label was born to create a new image for a traditional industrial process. With Prato's textile district being the biggest in Europe, and considering the crisis that has enveloped the textile industry since 2000 due to globalization and competition from Asia, "Cardato Regenerated CO<sub>2</sub> neutral" label was created in order to build a new image for Prato's textile production. In following the "green" revolution, this is the first textile product CO<sub>2</sub> emission free.

Businesses in the Prato area need to guarantee the presence of regenerated materials in textiles in order to respond to the demands of clients who have become much more attentive to environmental issues. This is how the brand was born. Businesses can now demonstrate the dual nature of their production processes, both CO<sub>2</sub> neutral and regenerated, through the involvement of a third party, the Prato Chamber of Commerce.

Another partner in this initiative is the Consortium for the Development and Tutelage of Cardato Textiles (a spin off the Prato Confindustria), which selected the firms that were the most suitable to experiment the new product. The validation of CO<sub>2</sub> emissions produced in the production process of Cardato was entrusted to TUV Italia, the authoritative certification and inspection division of the German firm, TUV Sud, which worked with textiles for the first time, and particularly with Cardato from Prato. The project had the financial support of Unioncamere, the national association of Italian Chamber of Commerce.

**PRATO, THE BIGGEST TEXTILE DISTRICT IN EUROPE** Prato and fashion: a enduring partnership that in recent years has grown even closer. Textile production has in fact made huge progress in terms of quality, thanks to investments by companies and the in-depth specialist knowledge of operators, whose combination of experience, style and creativity means they can offer their clients products that are always new and ahead of trends.

In this context there are many clothing brands, some more famous than others, that have started to work in the district, thanks also to the initiative of many young entrepreneurs who have managed to rework decades of experience in the district of textile production, identifying new trends and conquering market quotas. Today, also thanks to the presence of foreign businesses, there are almost the same number of clothing manufacturers as there are textile producers and they are getting ready to take on a new challenge: reaching the end user. Prato is on the cutting edge also for highly specialised articles, the result of technological innovation and research, accompanied by courageous investment in avant-garde machinery. There are companies producing paper textiles, medical textiles that gradually release medicines; technical textiles used in aeronautics and textiles that light up. And these are just some examples of the creativity of this district. Every stage of textile production can be found in this district, accompanied by a strong dose of creativity from operators: every six months, Prato's industry develops 2,000 new yarns, 60,000 new textile designs and hundreds of new textile collections. Every year Prato's textile industry produces around 90,000 tonnes of yarn, 300 million metres of cloth, 110 million metres of technical textiles and 12 million garments. The general value of production in Prato stands at around €5,630 million. Most of the products are exported to Europe, the United States and Japan and used by many of the most famous labels, which have chosen textiles from Prato to enhance their collections

## 2. DESCRIBE YOUR PROJECT BASED ON THE CATEGORY SELECTED

"Cardato Regenerated CO<sub>2</sub> neutral" it's a project addressing business and their social responsibility actions in community, environment, workplace and marketplace activities and promote a best practice in industry.

**CHARACTERISTICS OF THE BRAND.** Using the "Cardato Regenerated CO<sub>2</sub> neutral" brand, means the textiles:

- are produced in Prato's textile district (Prato and [neighbouring](#))
- are produced with at least 70% of recycled material (old clothing or textile off-cuts)
- have accounted for their CO<sub>2</sub> emissions and have purchased emission credits from the Prato Chamber of Commerce. The amount of credits purchased must correspond to business' production volume

Certificates are issued to individual lots of products in order to allow businesses to eliminate only the emissions of the textiles that they eventually sell.



**TRANSPARENCY.** On the site, [www.cardato.it](http://www.cardato.it), it will be possible to view a list of businesses that can use the new brand and a list of items that have been certified. This section ensures additional transparency to buyers.

**A GREEN NETWORK** There are 3 phases of textile production that can obtain the brand: regenerated fiber producers; yarn producers; fabric producers. So we have created a "green" network of production and our district can offer a new competitive advantage to their clients.

**THE 'GREEN' PRATO DISTRICT.** Over the last few years, the industrial district of Prato has become more and more attentive to environmental issues and concerns. It utilizes the most up-to-date technology to recover water (one of Europe's largest industrial aqueducts is in Prato) and has boosted its use of alternative energies in order to develop "zero impact" textile products. All production phases are present in Prato: from the production of fibers to the final product. This allows businesses to produce textiles that have been made entirely in the Prato district. This means that textile production in Prato has a limited impact on the environment.

**ZERO IMPACT CARDATO: HOW IT WORKS** If a factory produces carbon dioxide and pollutes the earth's atmosphere, in theory, that factory must buy the same (or more) quantity of credits in order to offset its carbon dioxide emissions. These credits (which are sold by those who provide carbon credits – called "ecobrokers") are used to cover the costs of tree and forest replantation (since trees absorb carbon dioxide) and the costs of other eco-friendly programs. Buying carbon credits is easy and incredibly efficient. When the quantity of your carbon dioxide emissions is completely offset by the number of carbon credits you purchase, you become "carbon-neutral".

**HOW TO CALCULATE CO<sub>2</sub> EMISSIONS** What is needed is an analysis of the energy performance and capabilities of the structure and activities of a factory, and an assessment of energy consumption and the CO<sub>2</sub> emissions that the manufacturing processes release into the atmosphere. In order to do this, factories must gather data on

their energy consumption, the use of materials, the modes of transport adopted and the number of people the employ.

**WHAT IS CARDATO?** Carding is a specific way of processing fibers. The yarns are produced by using virgin fibers, but also by reusing fibers obtained from recycling old clothing or knits, and cuttings of new fabrics used in the garment industry. The important feature of this process is that it can use short fibers and different lengths, in blends of the most variable composition. The result is a yarn with a particular aspect that distinguishes it from the other type of yarn known as worsted. Regenerated wool provided, for over a century, a phenomenal opportunity for the development and growth of the textile district of Prato on world markets.

The techniques of the "recycling process" in addition to being fascinating to watch, is proof of a culture that cares for the environment, has respect for human resources and a long tradition of skill and professional entrepreneurship.

The use of regenerated fibers has been neglected in recent years with the discovery of new synthetics and the growing demand for more expensive virgin fibers, partly as a response to expanding economies and also to a new consumer logic.

In the carding process, this has led to increased creativity and the production of yarns that are even more unusual and precious in compositions with an inimitable fashion content. We now have carded products in cashmere, angora, alpaca, mohair and other fine wools in blends with silk and viscose.

### 3. WHAT HAVE BEEN THE RESULTS AND INFLUENCE OF THIS PROJECT?

**SOME DATA ON CARDATO** Twenty-two thousand tons of 'rags' that have been produced with the Cardato technique are recycled in Prato every year. This yarn is produced with virgin fibers, obtained from recycled textiles or from new or used off-cuts. Cardato production is characterized by the use of short and heterogeneous pieces of yarn that are mixed together to create various textile combinations.

**THE FIRM INVOLVED** Today there are 22:

- 9 regenerated fiber producers
- 6 yarn producers
- 7 fabric producers

They have saved 3 Tons of CO<sub>2</sub> in 2009 and they are working to reduce the carbon footprint of their production to reduce the impact.

**CARDATO REGENERATED CO<sub>2</sub> NEUTRAL PROMOTION** We were present at the **Fashion Summit 2009**, which took place parallel to the UN Climate Change Conference in Copenhagen (COP15). Organized by NICE, the idea was to take advantage of the COP15 as a show window for the Nordic Fashion industry. The aim of the Fashion Summit 2009 was to sign a Code of Conduct and a 10-year plan of action for sustainable Nordic fashion industry. For this special occasion, bespoke goody-bags have been created with the use of "zero impact" textiles that are certified by the Italian Prato Chamber of Commerce, a unique project recently launched under the "Cardato Regenerated CO<sub>2</sub> neutral" banner. The result was an extremely versatile wool blend fabric, made from recycled textiles, which has a very limited impact on the environment, balancing CO<sub>2</sub> emissions throughout all stages of production. The Fashion Summit 2009 attracted approximately 600 participants from the fashion industry and other creative industries. The event featured speeches by speakers from the fashion industry, the CSR field, politicians and NGO's as well as a panel discussion and debate on what a sustainable fashion industry looks like and how to get there.

**PREMIERE VISION AND PITTI** "Cardato Regenerated CO<sub>2</sub> neutral" was present with a promotional stand in Premiere Vision (Paris, September 2009 and 2010), Pitti Filati (January 2009 and July 2010), Bunka Fashion College final show (November 2010). We contacted about 1700 people (fashion brand, fashion school, designer) interested in this label, that contacted the certified businesses. From this contacts the businesses involved had new business relation and got in touch with new markets.

#### **4. CAN YOUR IDEA BE APPLIED IN OTHER PARTS OF THE WORLD?**

The rules to Cardato Regenerated CO<sub>2</sub> Neutral Brand management and the TUV Protocol can be applied to other textile production in other parts of the world.

#### **5. WHY DO YOU FEEL YOUR PROJECT SHOULD BE SELECTED AS A FINALIST AND PRESENTED AT THE 7<sup>th</sup> WORLD CHAMBERS CONGRESS?**

"Cardato Regenerated CO<sub>2</sub> neutral" label should be selected on the basis of its main features, listed as follows:

- 1) the idea can be applied in other parts of the world and in other sector;
- 2) Small and medium size enterprises involved have done an accountancy of CO<sub>2</sub> impact of their production, even if they actually are not obliged to do it (like big company according to Kyoto Protocol);
- 3) Turn a traditional industrial attitude into an updated eco-strategic behavior;
- 4) Project have an immediate impact on the local business community;
- 5) "Cardato Regenerated CO<sub>2</sub> neutral" is a way to improve the social responsibility;
- 6) the project involved firms of all the textile cycle of production and create a "green" network in the district;
- 7) the results are concrete and the businesses had new and renewed commercial contacts thanks to this label;
- 8) Chamber of Commerce of Prato maintained an important role of coordination and guarantee on the market to respect the brand standard

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#### **For Further References:**

Camera di Commercio di Prato [www.po.camcom.it](http://www.po.camcom.it)

Cardato Regenerated Co<sub>2</sub> neutral: [www.cardato.it](http://www.cardato.it); [www.cardato.com](http://www.cardato.com)

On this site, you can also find technical documents about the label.