



SUSTAINABILITY IN FOCUS

CHANGE STARTS
WITH ME.

CARL WEISKE

INNOVATION IN TEXTILES

THE ONES, WHO SPEAK ABOUT THE FUTURE, CREATE IT.

**So let's discuss -
because sustainability is no longer a niche topic.**

Environmental awareness is increasingly turning into a central economic factor that will influence all companies in the future.

The textile industry is often criticized for being a major environmental polluter. According to estimates by the European Parliament, approximately 10% of global CO2 emissions are caused by the textile industry.

Therefore, we believe that we can only make a difference together.

Change starts with us.
With you.
And including society.

**Recycled materials
Optimization of the CO2 footprint
Closed recycling loops**

ECOVADIS SUSTAINABILITY RATING.

Carl Weiske was evaluated by the sustainability rating platform Ecovadis and achieved the gold medal.

This places our company among the top 5% of companies evaluated by Ecovadis.

The Ecovadis sustainability rating has shown our company strengths and potential for improvement.

That is why we are continuing to work on getting better - to move step by step into a sustainable future.

Ecovadis

Ecovadis is a specialist in sustainability assessments, which are prepared using comprehensive questionnaires and the assessment of documents regarding environment, labor and human rights, ethics and sustainable purchasing.

LIFE CYCLE ASSESSMENT.

A Product Carbon Footprint (PCF) measures the environmental impact of a product over its entire life cycle and results in a CO2 equivalent. A product-level carbon footprint is an application of the LCA methodology.

For our recycled filament and staple fiber yarns, we do a calculation of the Product Carbon Footprint PCF (compared to virgin yarns), mainly using primary data instead of relying on databases. The basis for this is the ISO 14040 and ISO 14044 standards.

The data included in the calculation:

- all substantial raw materials
- waste during production
- packaging materials
- all transport routes
- energy consumptions

The entire production process is modelled by using certified software. Based on the above data, direct and indirect greenhouse gas emissions are calculated, resulting in an honest and realistic carbon footprint of our products.

We would be pleased to inform you about our important findings, methodologies and values in the context of a closer co-operation.



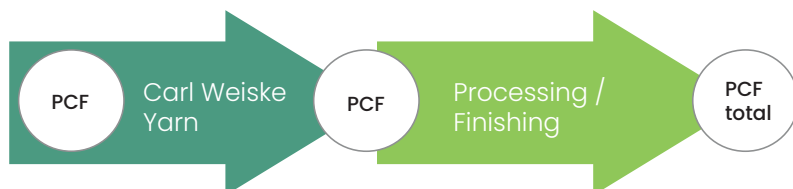
LCA SERVICE.

Life cycle assessments and especially CO2 balances of products are increasingly demanded by the industry.

However, many companies see the high-priced purchase of LCA software, the lack of data on upstream products, and the lack of internal resources as a major barrier. Hiring expensive services to calculate the LCA is also not an option for many companies.

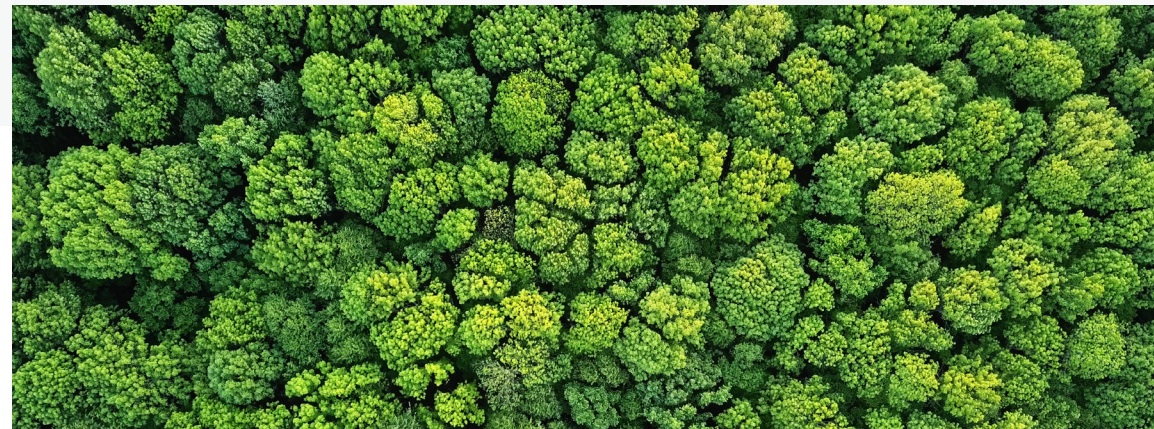
Carl Weiske therefore offers an additional service around Life Cycle Assessment and calculates your Product Carbon Footprint over the entire value chain of the product.

- ✓ Analysis of the entire product life cycle
- ✓ Collection of primary data
- ✓ Modeling of specific processes
- ✓ Calculation of customer-specific requests
- ✓ Calculation of LCA using certified software
- ✓ Lower price than external service companies



Methodology & Approach

1. Contractual agreement incl. regulations on confidentiality and data protection
2. Identification of the relevant production processes
3. Collection of all input data, if necessary also from suppliers using individual Lifecycle Input Forms
4. Modelling of the processes using certified software as well as calculation of the CO2 value by Carl Weiske
5. Creation of a report with a realistic Product Carbon Footprint and listing of optimization potentials
6. Final consultation
7. Regular updates of the Product Carbon Footprint





**SUSTAINABLE
PRODUCTS.**

RECYCLED POLYESTER GREENTEX.

Conventional textiles made of polyester require the fossil raw materials crude oil and natural gas for their production. Upcycling PET bottles can save crude oil, energy and CO2.

The worldwide consumption of plastic bottles is gigantic. According to the Environmental Action Germany, Germany consumes around 17.4 billion PET bottles a year. Stacked on top of each other, the pet bottles would stretch 15 times from the earth to the moon.

GREENTEX filament and staple fiber yarns are made from 100% recycled PET bottles. This increases the recycling rate of PET bottles that might otherwise have ended up in landfills or in nature.

PET = Polyethylenterephthalat

What are the qualitative differences between various suppliers?



The recycled PET (rPET) differs strongly in regard to purity & quality. The product quality depends on the respective degree of purification. The rule is: the lower the percentage of contamination and foreign polymers, the better the quality.

Therefore, we rely on elaborate blending & cleaning processes to ensure consistent quality.

Collection



Consistent bottle suppliers with firmly defined quality standards

Sorting



Several special sorting methods
electronic, manual & special methods

Washing



Washing processes before shredding & other special cleaning processes

PET-Flakes



Extrusion & granulation of PET flakes into rPET granulate with high purity.

GREENTEX 

BY CARL WEISKE



GREENTEX
PORTFOLIO

Especially in the area of sustainability & recycling, greenwashing can be done quite easily. Because the addition of new bottle PET to recycled bottle PET is neither visible nor verifiable for the consumer.

Therefore, we stand up against greenwashing and guarantee integrity and transparency for our GREENTEX yarns by ensuring full traceability and auditing the recycling processes.

We receive our used PET bottles from consistent bottle suppliers with firmly defined quality standards, which are also regularly audited.

Especially in used PET bottles, pollutants can accumulate. In order to exclude harmful risks to health, it is therefore essential for us to control the organic and non-organic pollutants of the recycled GREENTEX PET.

- Staple fibres
- Staple fibre yarns
- Filament yarns (friction textured)
- Taslan yarn
- For outdoor use with UV protection possible
- Available with biodegradable co-polymer on request

TRACEABILITY
&
INTEGRITY

Full traceability
Auditing of the recycling processes
GRS possible

POLLUTANT
MONITORING

OEKOTEX Standard 100
Additional pollutant controls

RECYCLED POLYESTER GREENTEX OCEAN.

GREENTEXOCEAN filament and staple fiber yarns are made from used PET bottles that are collected in coastal areas and therefore can not enter the sea.

These coastal areas are located in regions whose seas are particularly affected by plastic pollution.

A single PET bottle takes about 450 years to decompose. As a result, the amount of plastic waste in the oceans is constantly increasing.

With GREENTEXOCEAN, Carl Weiske is helping to prevent plastic from entering the oceans in the first place, and to collect it before it reaches the sea.

In this way, we help to keep the environment in coastal areas clean and to reduce pollution of the oceans.

GREENTEX OCEAN 
BY CARL WEISKE

SOURCES

- Collection within 50 km of marine coasts/waterways
- From regions that are particularly at risk due to lack of waste systems
- Picking up PET bottles from nature





SOCIAL
SUPPORT

- Helping people to help themselves
- Creation of jobs
- By collecting bottles, poor families can earn money
- The earnings help families to grow the business and open a small business

Difference to ocean plastic

We have decided against the use of plastic from inside the sea in our GREENTEX yarns.

Plastic from the sea is not collected in coastal areas, but rather „fished“ directly from the sea. While cleaning the oceans is also extremely important, we do not believe that the plastic collected from the sea is suitable for use in textiles.

This is because PET bottles attract pollutants like a „sponge“ after years of floating in the sea and should therefore not be further processed into textiles.

GREENTEX
OCEAN
PORTFOLIO

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RECYCLED POLYESTER FR FLAMEXGREEN

The polyester yarn FLAMEXGREEN helps to make flame-retardant textiles more sustainable.

Instead of virgin polyester, FLAMEXGREEN uses at least 50% recycled PET bottles (post-consumer). For many applications, it is even possible to use 95% recycled PET bottles.

However, the flame-retardant properties and inherent fire protection are still guaranteed. This is because phosphorus-organic compounds are also firmly anchored in the fiber in FLAMEXGREEN, and therefore ensure lasting fire protection even with frequent use or aging.

Regular quality controls ensure high product quality. Our engineers define the exact production process for the production of the yarn and a product design that fits to requirements.

FLAMEXGREEN 

BY CARL WEISKE

Sustainable

- FLAMEXGREEN is made from **at least 50% recycled PET bottles** (post-consumer). Use of 95% recycled PET bottles possible for many applications
- **Checking traceability** & compliance with social and environmental standards
- GRS certification possible

Safe

- **Permanent flame protection** – even after frequent use
- Complies with **national & international fire safety standards**
- **Brand approval** after testing according to DIN 4102 <<orienting B2 fire test>>

Tested for harmful substances

- **OEKOTEX Standard 100, class 1** (for babies)



FLAMEX
GREEN
PORTFOLIO

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CIRCULAR ECONOMY.

WE THINK FURTHER.

The principle of the textile circular economy is to recover used raw materials and return them to new production cycles. In this way, the life cycle of the products is extended.

In the field of textile circular economy, downcycling is currently the main option for used textiles.

However, Carl Weiske's ambition is to develop a recycling system used textiles can be recycled into yarns with a high product quality. This requires recyclable product designs right from the start.

Green Deal EU

The further development of the European circular economy is a central approach of the European Commission's Green Deal. The aim is to achieve a CO2-neutral, toxin-free and fully circular economy by 2050.

OUR APPROACH.



GREENCYCLE

Carl Weiske has extensive experience in mechanical and chemical recycling.

We are firmly convinced that a high-quality, textile recycling economy will be possible in the future and are already working intensively on this.

We are therefore looking for partners who will join us in taking further development steps in this direction. This includes the following topics:

- Development of recycling methodology through theoretical and practical analysis
- Joint definition of a recyclable product design (Design to Recycle)
- Carrying out recycling tests

FURTHER SUSTAINABILITY PROJECTS



PERMANENT TEXTILE RECYCLING SYSTEM



Biodegradable Polyester

- Containment of microplastics by adding organic additives to the polymer. These can degrade plastics in humus or seawater, for example.
- The duration and speed of degradation depends on several factors (moisture, heat, number of microorganisms, etc.).
- High levels of biodegradation have been demonstrated in tests (ASTM D5511) for biologically active landfills.
- The service life of the polyester polymer is not affected when used in textiles under normal circumstances.

Cotton from regenerative cultivation

- Reduction of carbon emissions through the use of regenerative cotton cultivation methods.
- Healthy, nutrient-rich soils store millions of tons of carbon. Leads to a positive CO2 balance.
- Innovative technologies make it possible to reduce the amount of water required and the use of chemicals and fertilizers.
- Highest quality cotton fibers. No contamination. Pure cotton.
- Use of FibreTrace technology (traceability starts with the seed).

- Further possibilities:
- Upcycling of cotton scraps from clothing production - e.g. Refibra of Lenzing

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