

SIOEN

Sustainable high visibility clothing





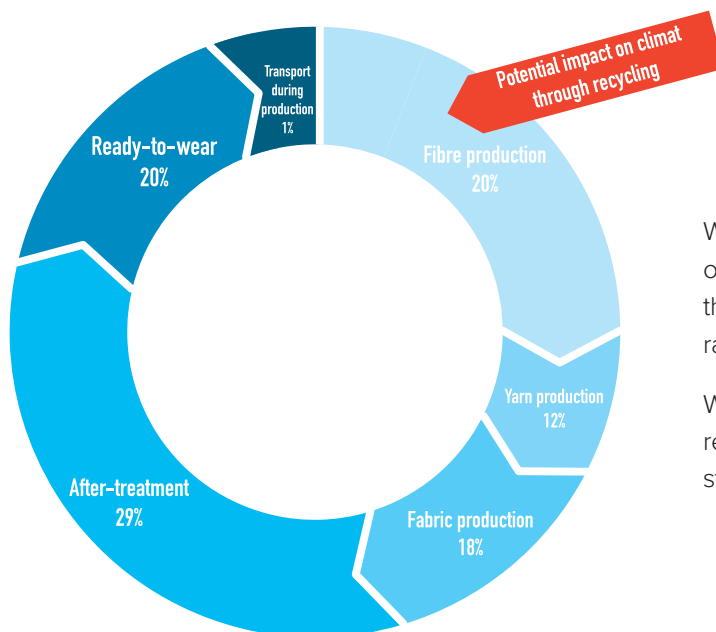
SUSTAINABLE SIOEN

Sioen's technical protective clothing is used in many different work conditions. Our garments often make the difference between life and death and should meet the highest standards. During product development, Sioen is always looking for the best solution for a particular protection level, considering comfort, ease of use and maintenance and sustainability. We are always looking for the best balance, without compromising safety and protection. In this new collection we have paid special attention to the sustainability aspect.

Sustainability is obviously more than just recycling used products.

In the graph below we see the various steps in the **production chain of protective clothing and their impact on the climate**.

Production chain of protective clothing



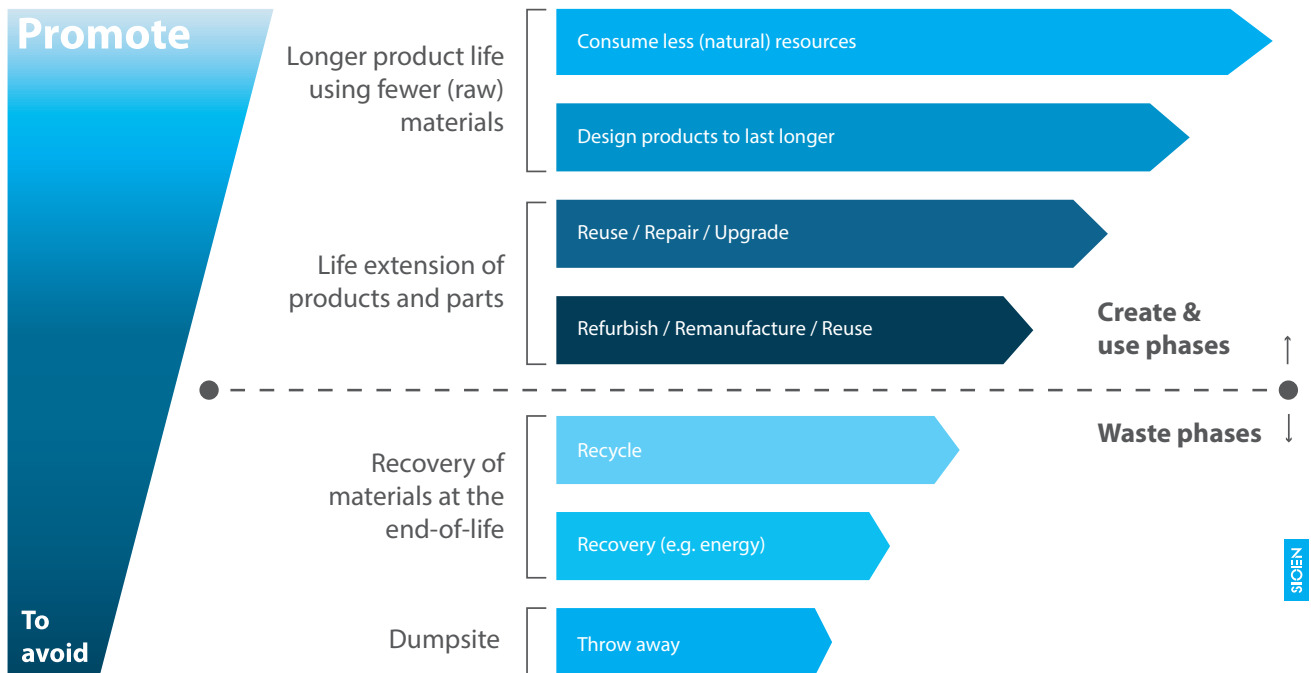
With recycling, we can only achieve a reduction of the impact on the climate in the production of the fibres, because of the reuse of the recycled raw materials.

When using recycled raw materials, there is no reduction of the impact in the other production steps.

This possible reduction of up to 20%, is certainly not negligible.

However we achieve a bigger impact if we manage to extend the lifespan of the products. In that case we reduce the impact on the environment in all stages of the production of a garment, simply because there is less production.

Therefore, Sioen applies a number of important basic principles in the development and production of this sustainable clothing in order of importance:



In this brochure we will explain the following principles further:

- Pg. 4** Maximum commitment to the most efficient use of raw materials
- Pg. 6** Eco-Design with focus on elements that extend the use and the expected lifespan
- Pg. 7** Eco-design for reuse / dismantling and recycling
- Pg. 8** Producing with care for people and the environment
- Pg. 10** Product overview

Efficient use of raw materials, the purest form of prevention.


Preferably we use **lighter materials and products**, always considering the required protection level and the expected lifespan of PPE. In this way we will naturally also use less raw materials.

Where possible, we gradually introduce **recycled** (e.g. r-PET) or (bio-) **renewable raw materials** with the lowest possible footprint in terms of CO₂ emissions, water and energy consumption, use of chemicals, etc. (e.g. replacing cotton with viscose) or Tencel®/Lyocell).

Using renewable raw materials

Renewable raw materials such as Tencel™ Lyocell fibres: 100% bio-cellulose from sustainably produced wood..

- Certified and checked wood: almost 100% of the wood and pulp used to make the Lyocell fibre is FSC® or PEFC™ certified or checked.
- No use of chemical fertilizers: no pesticides needed compared to growing cotton.
- Closed production: converting wood pulp into bio-cellulose fibres is a closed cycle. Up to 99.8% of chemicals and solvents are recycled.
- Optimized water consumption: up to 21x less water needed compared to growing cotton.


-95%
Water consumption

Forest



Wood



Pulp



Fibre



Yarn



Fabric



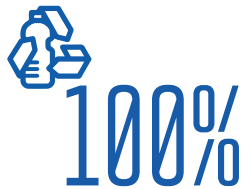
End Product



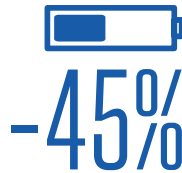
Using recycled raw materials

Sustainable raw materials like r-PES: 100% thermoplastic recycled polyester.

- 100% upcycling: use of 100% recycled polyester from PET bottles and post-industrial waste (fibres are traceable and certified).
- 45% energy, 20% water and 30% CO₂ emission is saved compared to the production of virgin polyester.



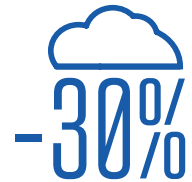
Recycled polyester



Energy use



Water consumption



CO₂-emission



All our raw materials are certified according to the Global Recycled Standard (GRS). GRS is an international, voluntary, standard applicable to the entire product and sets requirements for third-party certification in connection with recycled content, security chain, social and environmental practices and chemical restrictions. The GRS objective is to increase the use of recycled materials in products and to limit/eliminate the damage caused by its production.

The GRS objectives are:

- Offer assurance that the materials used in the end product, are actually recycled and processed in a more sustainable manner.
- Making recycled source materials traceable.
- Offering customers, both brands and consumers, a tool in order to make informed decisions.
- Reducing the harmful impact of production on people and the environment.



**STANDARD
100**

When choosing the raw materials used, Sioen makes maximum use of Oeko-Tex® 100 certified qualities. This standard is one of the world's most well-known labels for textiles that have been tested for harmful substances. If a textile product has the Oeko-Tex® 100 label, this means that even the smallest components

have been tested for harmful substances and that the product is not harmful to health.

Of course, attention is also paid to sustainable packaging materials and methods, energy consumption, transport,...

Eco-Design for extending the lifespan

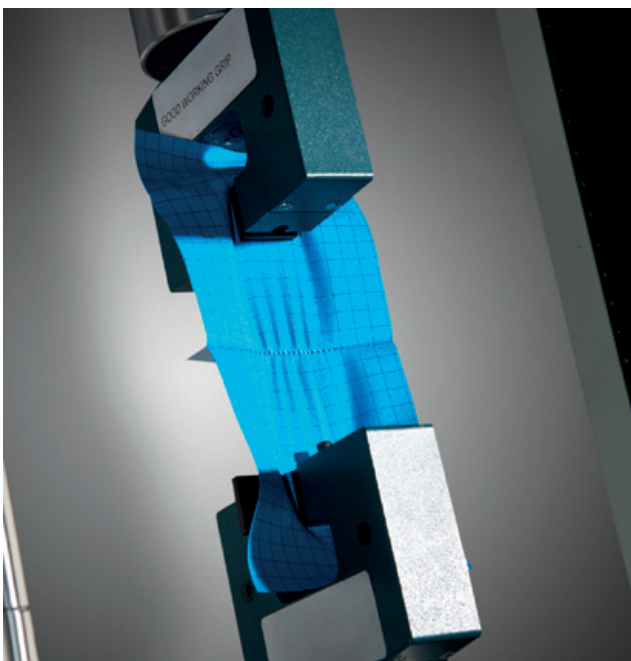
The longer we can continue to use protective clothing, the lower the impact of this product on the environment. Ultimately, this also greatly reduces the **“Total Cost of Ownership”**.

Choosing materials with the highest possible lifespan results in replacing PPE less quickly. The following elements are important in the choice of materials:

- Attention for fabrics with high mechanical strengths (tear strength, abrasion, pilling, etc.) and good colour fastness, during use and after washing.
- Increasing the max. number of washing and drying cycles of fabrics and components.
- Choosing for better wash-resistant finishes (FLC, etc.).
- Setting high requirements in terms of resistance to hydrolysis (moisture, temperature, etc.) for plastics (adhesives, coatings, laminates, etc.).

PPE is of course sometimes used in aggressive work conditions where wear and damage cannot be avoided. Therefore, we pay as much attention as possible to eco-design, whereby our protective clothing is designed in such a way that repairs can be carried out more easily if necessary so that we can extend the lifespan. This can be done, for example, by providing an access or opening in the lining of a garment or, for ease of repair, not incorporating retro-reflective bands into the seam.

Sioen is always available for additional information such as repair and cleaning instructions.



Eco-Design for reuse / dismantling & recycling

Eco-design means that from the concept of the protective clothing, the follow-up process after the garment has been taken out of use is also taken into account.

This mainly concerns a consideration between:

- Striving for a maximum homogeneity in the choice of materials and components. For example, the YKK zippers used are made from high-quality recycled polyester. In this way the zippers do not have to be separated from the rest of the garment when recycled because both the zipper tape, the coil and the fabric used are produced in the same recycled polyester.
- The technical and economic feasibility of disassembling and sorting clothing materials. Therefore, research is also being carried out into how degradable yarns can be used in the future.
- Removing disruptive components for recycling. For example, we do not stitch the reflective tapes completely into the seam so that the tape can be easily removed during recycling.





Producing with care for people and the environment

Sioen Apparel is a division of the international Sioen group, which is fully committed to sustainability.

At Sioen, Corporate Social Responsibility (CSR) - all actions we take to have a positive impact on the world - is a source of innovation and value creation for all parties involved. It is an important part of our corporate strategy, and it has been translated into our corporate slogan “innovate to protect” for decades, improving people’s lives..

We use the triple bottom line and the SDGs (Sustainable Development Goals) of the UN as guideline for our activities and priorities. Our actions translate into certificates, audits, memberships and awards..

The group has CSR in its mission, vision, values and strategy. Sioen implements this in a sustainability policy and reports on this in its annual report, which includes a sustainability report.

In addition, the group also reports on the 5 Ps of CSR (People, Planet, Prosperity, Peace, Partnerships) and on actions within the 17 SDGs in a CSR manifest. You can read about our various initiatives on the group’s website and social media channels.

csr.sioen.com



Sioen's Environment Charter

At Sioen, we believe that being responsible, both socially and environmentally, is good for people and the planet, and that it is essential to the sustainability of our business.

We are managing our sustainable approach towards operational excellence by focussing on:

- improving energy efficiency;
- optimising and decreasing waste flows;
- innovating and optimising production processes and the use of raw materials;
- managing our emissions and CO₂ footprint;
- reducing and optimising water usage;
- maximising reuse and recycling through innovation and good housekeeping.

All affiliates within the Sioen group support this vision by implementing best practices.

To have a full overview of all our Corporate Social Responsibility actions, please consult our dedicated CSR website, csr.sioen.com.

Michèle Sioen
CEO of the Sioen Industries group

SIOEN INDUSTRIES

Interested? [Go to www.sioen.com](https://csr.sioen.com) for more information.
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STeP certification and ISO 14001

Sioen Apparel is responsible for all parts of the production and sales process that are STeP (Sustainable Textiles Production) by Oeko-Tex® certified:

- R&D,
- design,
- product development,
- selection of suppliers, raw materials and purchasing,
- CE certification,
- production instructions,
- laboratory and quality control,
- planning,
- sales,
- logistics and distribution.

This means that those activities are checked by the STeP management system. Sioen achieves the highest score, namely level 3. The system is based on 6 pillars:

- quality management (cf. ISO 9001),
- environmental management (cf. ISO 14001),
- environmental performance,
- chemical management,
- safety management (cf. ISO 45001),
- social conformity (cf. SA8000).

Not only our own processes meet strict standards, but our suppliers are also checked against criteria within Corporate Social Responsibility. For example, they must sign the STeP Code of Conduct and AMFORI BSCI Code of Conduct.

Our own production sites that are responsible for the production obtain their own ISO 14001 and ISO 45001 certificates and/or are audited for Corporate Social Responsibility (BSCI) according to AMFORI or WRAP (Worldwide Responsible Accredited Production).



ISO 14001 is an internationally accepted standard that indicates what a good environmental management system should meet. OHSAS 18001 is a certifiable management system standard for safe and healthy working conditions

It goes without saying that the United Nations' 17 Sustainable Development Goals are also central to our policy.



NEW **Broby** - 680AA2MC7

Hi-vis polo shirt

For our sustainable polo shirt Broby we paid a lot of attention to the efficient use of resources. The Broby is made from 100% recycled polyester. In addition, the used fabric is light, so less raw materials are used for the production of this polo shirt. The Broby is not only good for planet earth, but it is also good for you as it complies to the international standard EN13758-2 and thus protecting the wearer against the sun's harmful UVA and UVB rays. Available in S - XXXL.

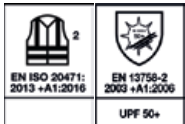
Fabric:

100% recycled cooldry polyester; $\pm 140\text{g/m}^2$

Colour:

- FY1 Hi-Vis Yellow
- FC1 Hi-Vis Orange

Standards:



-0,214 kg CO₂ eq/pc



NEW **Aborg** - 9912A2TUR

Hi-vis softshell jacket (fixed sleeves)

The Aborg is a 2-colored softshell made from recycled polyester and fleece. It keeps you visible in any light conditions and warm in cool environments. The elastic at the end of the sleeves also help to keep the wind out. This softshell, with 2 pockets on the outside and 1 on the inside, has been designed to last. The longer we can wear a garment, the more we can reduce its impact on the environment and on top of that: it's better for your wallet! Available in S - XXXL.

Fabric:

2-layer bonded softshell: 100% recycled PES face fabric + 100% recycled PES fleece; $\pm 250\text{ g/m}^2$

Colour:

- 292 Hi-Vis Yellow/Navy
- 293 Hi-Vis Orange/Navy

Standards:



-0,688 kg CO₂ eq/pc



NEW **Turup** - 083VA2PEE / 083VA2PEJ

Hi-vis workwear trousers

The Turup trousers in fluorescent yellow are practical and sustainable. Practical: the Turup is equipped with several pockets including a handy multiple tool storage pocket and a hammer loop. Sustainable: the fabric used for these trousers are composed of Lyocell, bio-cellulose made from sustainable sourced wood pulp, and polyester from recycled PET bottles. With these trousers you stand out in the work environment and you also make a positive contribution to everyone's environment. Available in EUR: Regular: 44 - 64 Long: 46 - 56.

Fabric:

083VA2PEE: 35% Tencell Lyocell + 65% recycled polyester; $\pm 260\text{g/m}^2$

083VA2PEJ: 80% recycled polyester + 20% Tencell Lyocell +; $\pm 270\text{g/m}^2$

Colour:

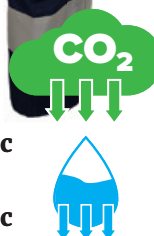
- 292 Hi-Vis Yellow/Navy (083VA2PEE)
- 293 Hi-Vis Orange/Navy (083VA2PEJ)

Standards:



-0,75 kg CO₂ eq/pc

-35m³ H₂O eq/pc



NEW ***Birkum*** - 682AA2L2R

Hi-vis rain jacket

That sustainability goes hand in hand with visibility and protection shows the Birkum. This hi-vis rain jacket is designed with attention for efficient use of resources and attention for its recyclability. Not only recycled raw materials are used but the jacket has also been designed for easy disassembly. This sustainable jacket protects the wearer also against the effects of precipitation as it complies to the highest class of the latest EN 343 standard. Available in S - XXXL.

Fabric:

100% Recycled polyester + TPE laminate; $\pm 190\text{g/m}^2$

Colour:

- 292 Hi-Vis Yellow/Navy
- 293 Hi-Vis Orange/Navy

Standards:



-0,68 kg CO₂ eq/pc



NEW ***Grady*** - 681AA2L2R

Hi-vis rain trousers

If you are looking for rain trousers that match the Birkum high visibility ECO rain jacket, you should definitely opt for the Grady. These ECO rain trousers are designed with attention for efficient use of resources and for the products' recyclability. These sustainable trousers also protect the wearer against the effects of precipitation, complying to the latest EN 343 standard. Available in S - XXXL.

Fabric:

100% Recycled polyester + TPE laminate; $\pm 190\text{g/m}^2$

Colour:

- 292 Hi-Vis Yellow/Navy
- 293 Hi-Vis Orange/Navy

Standards:



-0,68 kg CO₂ eq/pc









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