



Wearable Active Lighting

USE CASES
INCLUDED

SUNFIBRE[®]

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Wearable Active Lighting that makes a difference.

Millions of emergency, security, and police personnel, workers, athletes, children, and others are at risk in low-light conditions, relying on passive retro-reflective technology that is more than 60 years old. SUNFIBRE® brings a whole new level of protection with its active lighting system.

We are setting the future standard for safety.
Become part of the new standard.

Contact

sunfibre@scilif.com

www.sunfibre.com

OUR COMPANY

About us

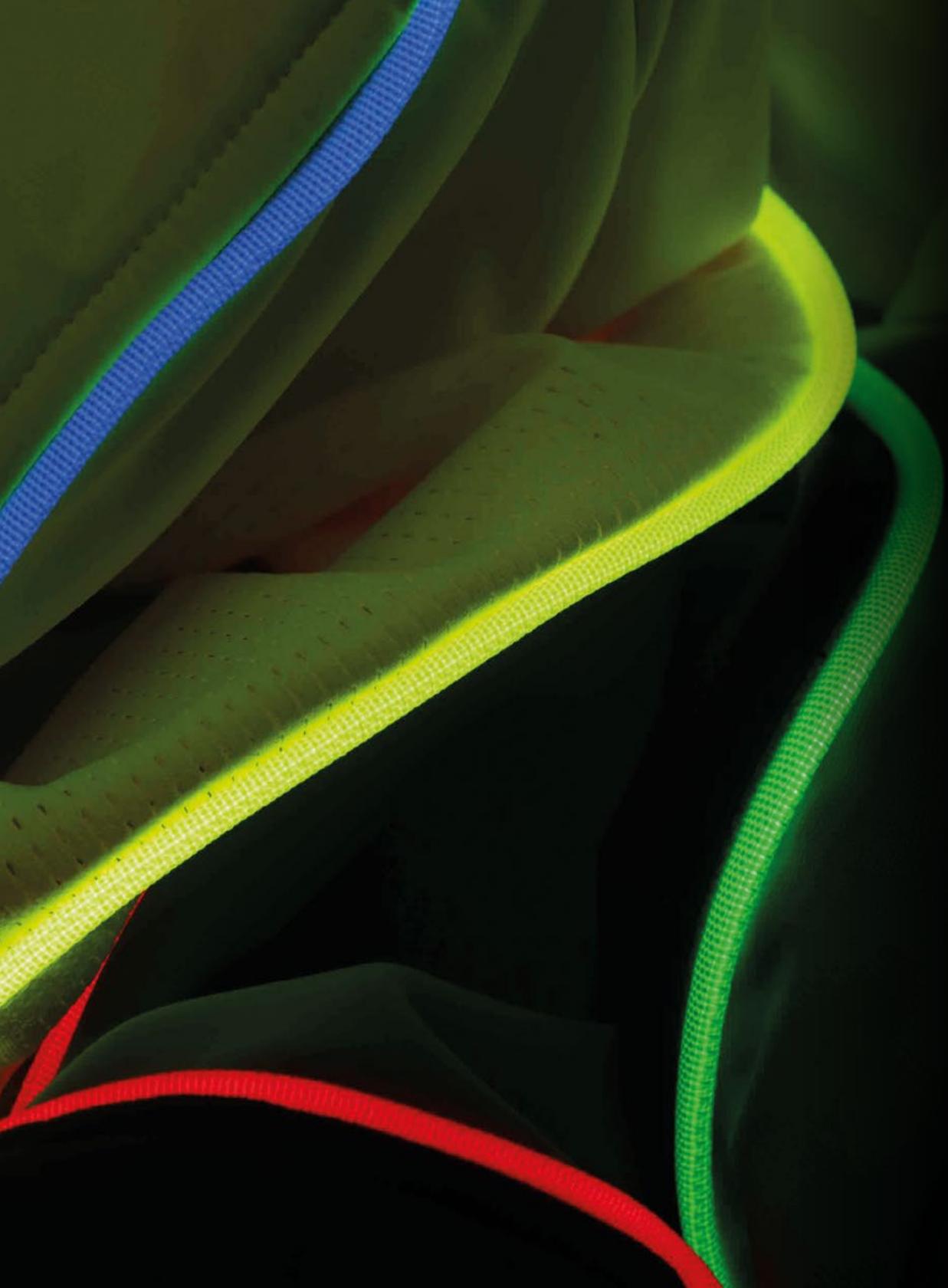
Technical Leadership

Safety

Quality and Durability

Guarantee

Sustainability



About us

The name SCILIF is a clever combination of the saying “Science for Life”, and as SCILIF we are committed to improving visibility and awareness of the individual in any potential danger or hazard by the use of our active technology and thus increasing the safety in a wide range of professional and public sectors.

The company was founded in 2014 for the purpose of developing SUNFIBRE® Wearable Active Lighting Technology for personal safety. The core concept was invented in collaboration with the Technical University in Liberec and further developed by SCILIF into a comprehensive system protected by several patents and sold under the brand name SUNFIBRE®.

The technology is now distributed in five continents and used by leading brands worldwide.

We at SCILIF are totally committed to providing our customers, but also our customers’ customers, absolutely the best available technology in Wearable Active Lighting.

We look forward to hearing how we can support your brand and help protect your customers.

Our 5 Commitments



1. Technical Leadership

At SCILIF we are 100% committed to maintaining technological leadership: not just tomorrow, but for the long run. Internally, we are working on several new patent filings that will take our SUNFIBRE® Technology to new levels as well as extending SUNFIBRE® application areas so more customers can benefit from the safety features.

Also, we are working on a number of special application areas with tactical units and selected industrial clients that will lead to solutions with broader applications.

Should you have a special requirement or would like us to work with you on developing a special bespoke application, please contact us.



2. Safety

We are absolutely committed to improving practical safety wherever we can. SUNFIBRE® Active Lighting can and will make the difference and could quite literally save your life.

Our commitment to safety, however, does not stop with just active lighting. It extends to how easy the product is to use, how reliable it is, and we work with our customers to ensure the best integration possible to ensure the highest level of safety for the wearer.



3. Quality and Durability

We place a very high value on product quality and durability. Our products are designed to be as rugged and durable as the products they are integrated into. The SUNFIBRE® technology is engineered and bespoke to customers requirements to ensure efficacy.

Our production facilities are located in Europe, and we conduct our own tests, alongside a wide range of European testing organizations to confirm both quality and durability. The fact that leading global brands have tested and chosen SUNFIBRE® products speaks to our commitment to quality.



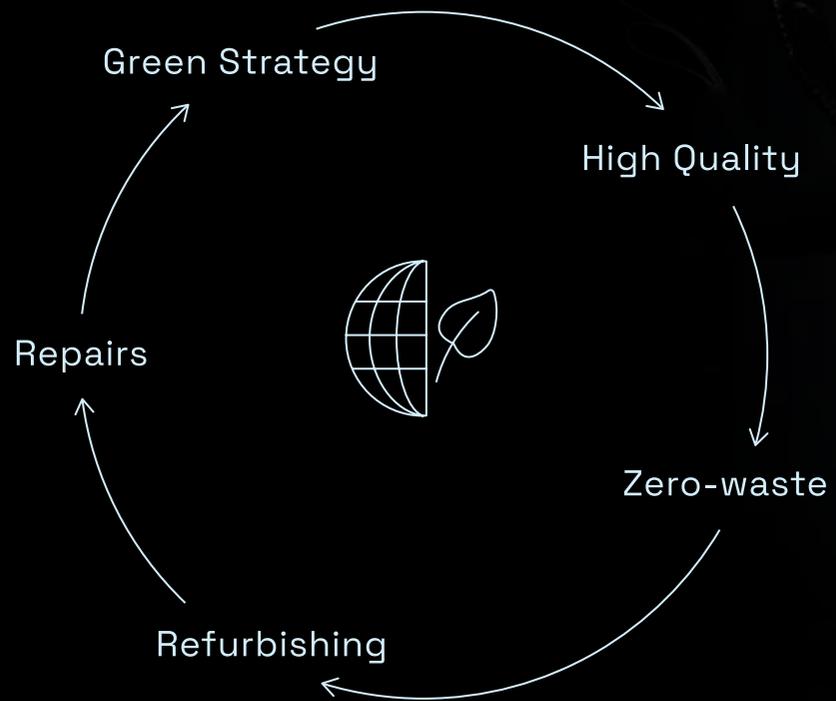
4. Guarantee

Our key components come with a standard 2-year warranty, though by design our SUNFIBRE® Technology is made to last at least the average life expectancy of typical applications. Should you require a longer product warranty that matches your product warranty, then we are able to work with you to achieve this. See Technical Specifications for detailed information. Overall, we guarantee top workmanship, high-quality colour fastness, and use only brand-name battery suppliers.



5. Sustainability

Sustainability is more than just a buzzword for us. The following are characteristics that demonstrate our commitment to minimizing our impact on our earth.



APPLICATION AREAS

Security & Rescue

Workwear

Sport

Urban Safety

Nautical

Bags & Backpacks



Security & Rescue

Improving Visibility for Security and Rescue Personnel

SUNFIBRE® Active Lighting Technology meets the most demanding needs of police, security and rescue personnel. Fully washable, durable, flexible and intense, SUNFIBRE® adds critical layer of protection to night operations, increases the visibility of the user and enables easy identification of individual members of the team and their gear.

SUNFIBRE® Technology can be powered from any power bank, or for special applications our waterproof (IP68-certified) Heavy Duty unit with special sensors allow for the detection in a range of emergency situations.

Key Characteristics



Up to 3 km visibility
in all directions 360°



Mechanical durability
and bendability



Industrial wash
tested



Variable modes
of operation

Other Features and Benefits

- Homogenous lighting along the entire length of the optic fibres
- Easy integration into product (our patented solution)
- Suitable for integration into sealed seams



Workwear

Be Responsible for Workers' safety

SUNFIBRE® Active Lighting Technology dramatically improves worker visibility. From night construction work in hot climates to 24-hour critical infrastructure services, workers are clearly visible to both each other and to supervisors. Overall safety and work flow is increased, as asset allocation through identification assist in speeding up the workflow and increasing productivity.

SUNFIBRE® Technology is industrial-wash tested, very durable, flexible, up to 50 hours of operating time, and comes in a wide range of adaptations including special sensor integration.

Key Characteristics



Up to 3 km visibility in all directions 360°



Easy haptic control in gloves. Smart button modes



Industrial wash tested



Operation time up to 50 hours

Other Features and Benefits

- Provides additional safety to PPE in accordance with EN ISO 20471 standard
- Homogenous lighting along the entire length of the optic fibres
- Mechanical durability and flexibility of the optic fibre
- Easy integration into product (our patented solution)
- Suitable for integration into sealed seams



Sport

Improving Safety For Night Training

We are committed to improving the safety of professional and amateur athletes whenever their training takes them into night hours or other poor visibility situations. Our SUNFIBRE® Active Lighting Technology can be adapted to each specific need, be it super ultralight solutions for runners or all-weather solutions for cyclists or cross-country skiers.

With SUNFIBRE® solutions your sports equipment keeps its lightness, washability, and flexibility. Enjoy your activities without any limits and be seen, be safe.

Key Characteristics



Up to 3 km visibility
in all directions 360°



Ultralight Solution



Industrial wash
tested



Easily integrated

Other Features and Benefits

- Homogenous lighting along the entire length of the optic fibres
- Mechanical durability and flexibility of the optic fibre
- Easy integration into product (our patented solution)
- Suitable for integration into sealed seams

Urban Safety

Making the Night City a Safer Place

On first glance, cities seem to be full of light with adequate visibility. In fact, cities are full of dark pockets, harsh contrasts, and distracted drivers. SUNFIBRE® Active Lighting Technology integrates well into a wide range of products (jackets, strollers, backpacks, armbands) that dramatically improve personal visibility during your evening activities.

SUNFIBRE® Technology is fully washable, lightweight, flexible, durable, powered by any power bank, and offers the most energy efficient solution for personal visibility.

Key Characteristics



Up to 3 km visibility
in all directions 360°



Ultralight Solution



Industrial wash
tested



Easily integrated

Other Features and Benefits

- Homogenous lighting along the entire length of the optic fibres
- Low-power consumption
- Suitable for integration into sealed seams



Nautical

No Fear of Dark Waters

SUNFIBRE® Nautical is our Active Lighting set designed specifically for demanding offshore applications. It is waterproof, shockproof, and is designed to keep going through the roughest conditions. SUNFIBRE® Nautical can be integrated into lightweight vests, all-weather outer shells, or directly into life jackets.

Importantly, SUNFIBRE® Nautical can have low-intensity red setting so that team members are seen without destroying night vision, but in an emergency or man-overboard situation the system can automatically switch to a flashing high-intensity red. In every case, if you are in the water or out, you will be visible.

Key Characteristics



Up to 3 km visibility
in all directions 360°



Variable modes
of operation



High resistance
against water



Operation time
up to 50 hours

Other Features and Benefits

- Homogenous lighting along the entire length of the optic fibres
- Mechanical durability and flexibility of the optic fibre
- Suitable for application with glue underneath
- Automatic light signalling when immersed in water

Bags & Backpacks

We Got Your Back

SUNFIBRE® Active Lighting Technology can be integrated into a wide range of bags and backpacks for paramedics, hikers, or urban commuters. In all bags and backpacks, SUNFIBRE® brings essential illumination to improve visibility and safety.

For paramedics, SUNFIBRE® saves precious time returning to their kit on an accident scene or by providing lighting inside the bag to assist in emergency supplies selection. For urban cycle commuters, we believe SUNFIBRE® will become as ubiquitous as helmets.

Key Characteristics



Up to 3 km visibility
in all directions 360°



Mechanical durability
and bendability



Variable modes
of operation



Wide selection
of colours

Other Features and Benefits

- Homogenous lighting along the entire length of the optic fibres
- Easy integration into product (our patented solution)
- Low-power consumption
- Fast recharging (Li-Pol battery) and battery level control

THE

PRODUCT

Components Overview

Attachement Methods

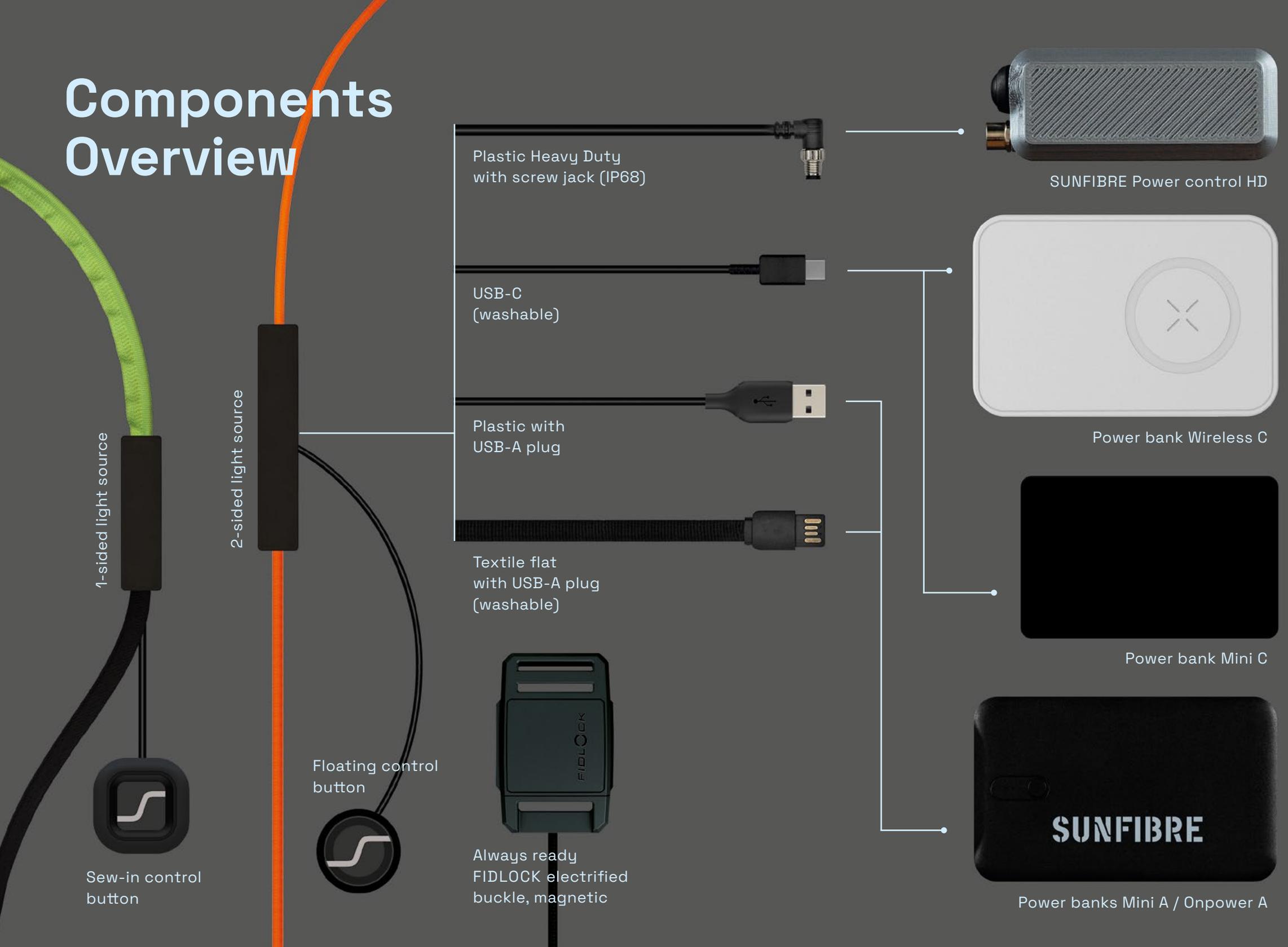
Technical Specifications

Product Technology

Marketing Support

Colour Card

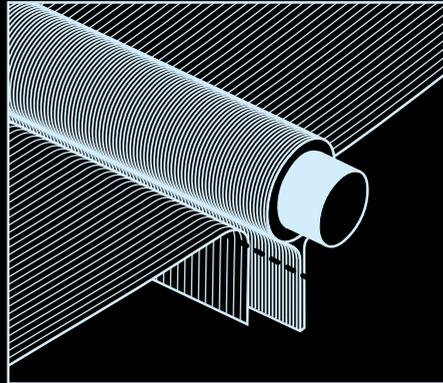
Components Overview



Attachement Methods

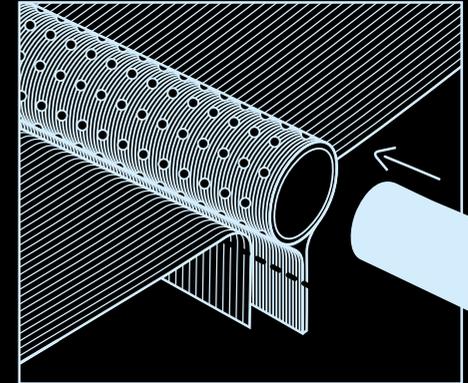
Piping

This is the easiest, most secure and our recommended way to fasten SUNFIBRE® to your product. The optical fibre is protected within a textile piping sheath that is easily sewn into any seam.



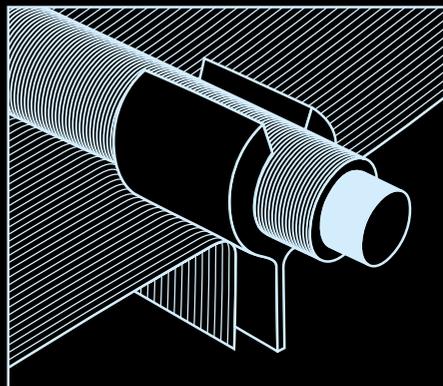
Perforated reflective tape

This solution maintains light reflection even when the SUNFIBRE® system is switched off. Available as a tape or as a piping. A special tape that is certified for projects with a **flame retardant** requirement is also available.



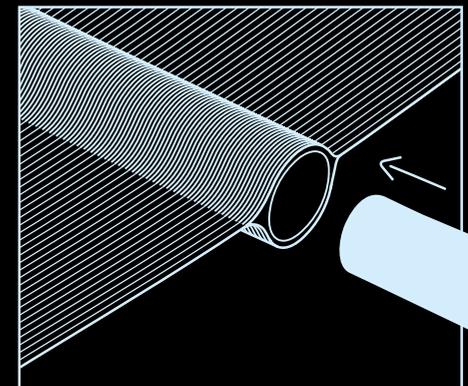
Tubing

This method allows the user to detach the SUNFIBRE® system from rubber clips sewn into the seam of the textile product while retaining the full benefits of having the optic fibre protected by an external textile sheath.



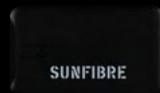
Naked

Here we supply only the naked optic fibre and your manufacturing inserts this into a prepared "tunnel" in the final product, typically made of perforated netting or translucent material.



Technical Specifications

Power Sources



Product name	Power Control Heavy Duty	Power Bank Mini A	Power Bank Onpower A	Power Bank Wireless C	Power Bank Mini C
Battery type/capacity	Li-Ion 3500 mAh	Li-Pol 2500 mAh	Li-Pol 4000 mAh	Li-Pol 5000 mAh	Li-Pol 3000 mAh
Working time	50 hours (1-sided) 25 hours (2-sided)	30 hours (1-sided) 15 hours (2-sided)	45 hours (1-sided) 22 hours (2-sided)	50 hours (1-sided) 25 hours (2-sided)	30 hours (1-sided) 15 hours (2-sided)
Standard colours	- Silver - Blue - Military Green	- Black - White	- Black - White	- White - Black	- Black - White
Special sensors	Motion detection Water immersion	Not applicable	Not applicable	Not applicable	Not applicable
Indicators	- Battery level - Charging	- Battery level - Charging - On/Off			
Dimensions	90 x 37 x 20 mm	102 x 62 x 10 mm	96 x 66 x 13 mm	103 x 68 x 15 mm	86 x 54 x 7 mm
Weight	110 g	69 g +/- 10 g	80 g +/- 10 g	123 g +/- 10 g	66 g +/- 10 g
Fast charging	No	Yes	Yes	Yes	Yes
Voltage	5 V	5 V	5 V	5 V	5 V
Charging connector type	IP68 Screw-in	USB B	USB B	USB C	USB C
Certificates	UKCA, CE, RoHS, IP68	CE, UKCA, REACH, RoHS, WEEE			

Technical Specifications

Accessories



Product name	Floating Button	Sew-in Button	Heavy Duty Charging Cable	Rubber Clip
Description	Our Floating Button for loose integration into pocket or it can be hidden in the fabric.	Control Button for integration into fabric surface.	Special screw-in jack charging cable compatible with Power Control Heavy Duty.	Rubber sew-in clips to allow complete detachment of SUNFIBRE® system from backpack or garment.
Standard colour	Black	Black	Black	Black (customized MOQ 3 000 pcs.)
Material	Injection molded	Silicon	Plastic/Metal	TPU
Dimensions	28 x 4,5 mm	32 x 32 mm (button) 50 x 50 mm (including sewing edges)	Length = 10 mm	18 x 17 mm
Weight	5 g	18 g	18 g	1 g
Modes of operation	- Flashing - Bright continuous - Eco continuous	- Flashing - Bright continuous - Eco continuous	Not applicable	Not applicable
Certificates	CE, RoHS, IP68	CE, RoHS, IP68	CE, RoHS, IP68	Not applicable



Product Technology

Patented Technology

Our SUNFIBRE® Technology is protected by several patents. For example, patent EP2917391 is our invention of a side-emitting light guide incorporated into (textile) piping which can be easily attached to any fabric. This gives the final product a clean and professional look, provides for additional protection of the light guide, and maximizes colour choices for maximum design flexibility. Patent EP3073192 protects our unique optical LED configuration that powers our light guide, which maximizes the combination of high light power, high energy efficiency, low heat generation, and long battery life.

Testing Procedures

We know that our customers will use active lighting in the most demanding and life-protecting ways. As such, we place a very high value on product quality, durability and reliability. Products go through a range of technical tests during development and are then submitted for independent testing to certification authorities. Finally, our products have gone through very robust testing with leading brands. No need to mention tactical forces as this can be negative sometimes.

Services and Support

The SUNFIBRE® Sales Team has deep technical knowledge and is available to provide assistance to you at every step of your development and manufacturing journey. Our goal is to support you in deploying our SUNFIBRE® Technology into your product to build your competitive advantage and increase customer satisfaction. Specifically, we can offer the following:

Customized Product

We have already worked with a wide range of leading brands in developing customized or proprietary solutions. We work with various manufacturers of tactical equipment on a wide range of classified projects that integrate our technology.

Repair Services

In case that our SUNFIBRE® Technology is damaged and has been integrated into the product using our guidelines, then we are able to repair and/or replace components, including the light guide itself without taking out the textile piping.

Warranty Claim

If you require independent review, we will provide you with a formal opinion on whether our SUNFIBRE® Technology was properly used and identify probable causes of failure/damage. The standard warranty is 2 years and 600 charging cycles for the battery.

Design Support

Should you wish, we are able to support you in how best to integrate our SUNFIBRE® Technology from a design perspective to maximize safety and ensure that customer comfort and SUNFIBRE® product life is maximized.

Product Technology

Certificates

CE

The CE identification proves that the product is compliant with EU legislative for protection of health, safety and environmental protection. Obtaining CE certification is necessary to introduce the product to markets within the EU Economic Community.

IP68

IP68 is the highest level of IP certification, tested to a depth of 3 m for up to 2 hours, including salt water. The electronic devices identified by the international certification are also resistant against penetration by particles such as dust, sand or dirt.

RoHS

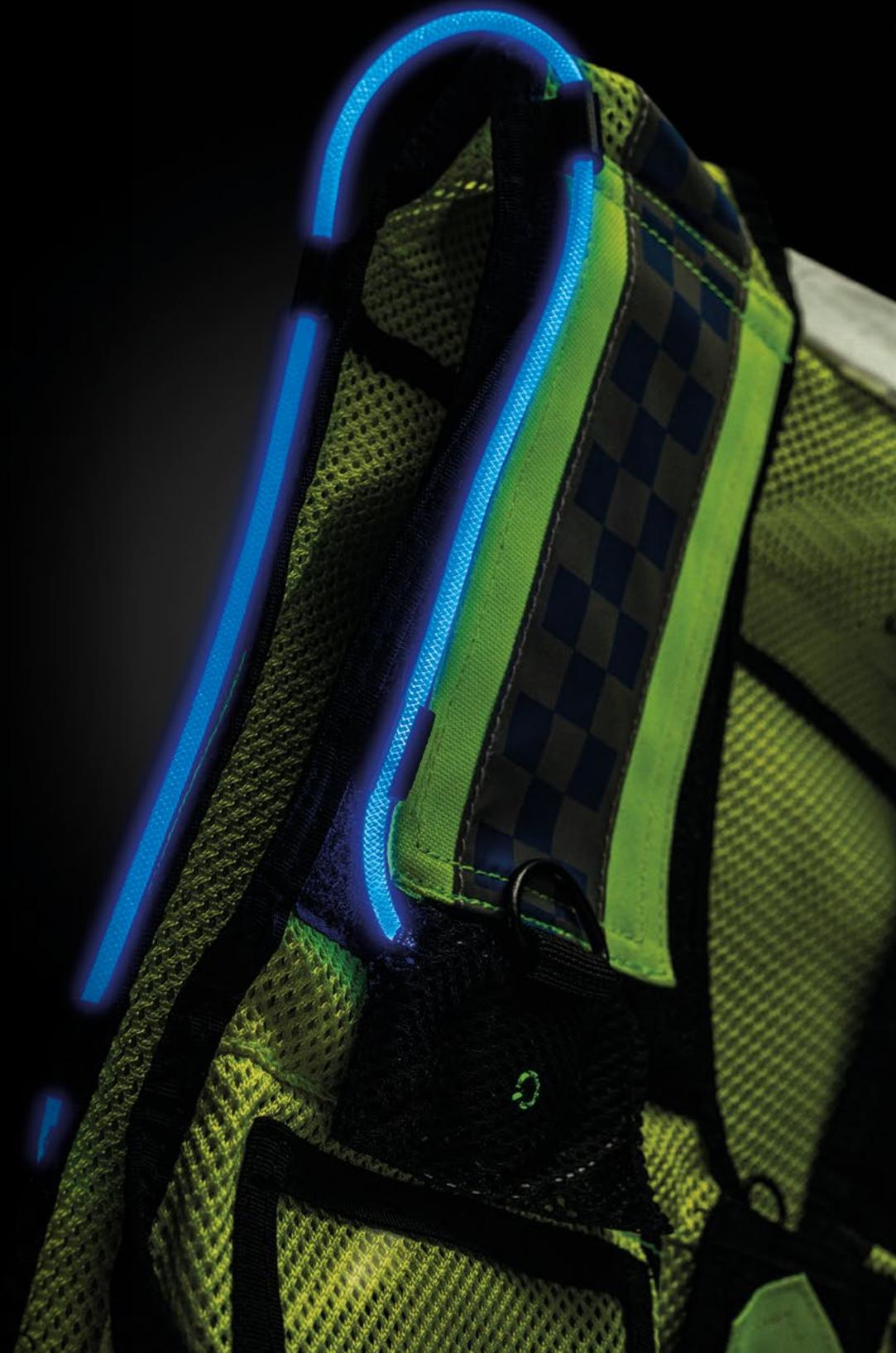
The RoHS declaration ensures that the electric and electronic devices do not contain certain dangerous substances and that thus certified products are healthy and safe for human use.

ISO 9001:2015

SUNFIBRE® is manufactured in accordance to ISO 9001 norms in our certified facility.

EN469:2020

Contact us for more information about certification on flame retardant garments with integrated SUNFIBRE® technology (Certificate is not related to power bank).



Marketing Support

SUNFIBRE® marketing support for our licencing partners

The SUNFIBRE® technology gives your products a greater identity and offers an important way to set yourself apart from the competition. The simplest way of informing final users about your unique product's integrated with patented European technology SUNFIBRE® is to place its logo on your product.

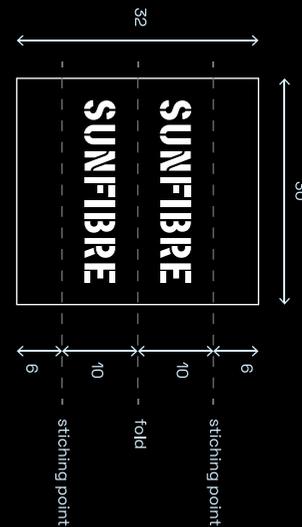
Woven sew-on label

Black & white
SF-BT-48'117-BW



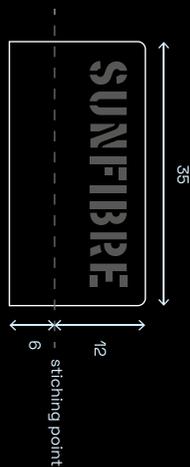
Woven seam label

Black & white
SF-BT48'118-1-WB



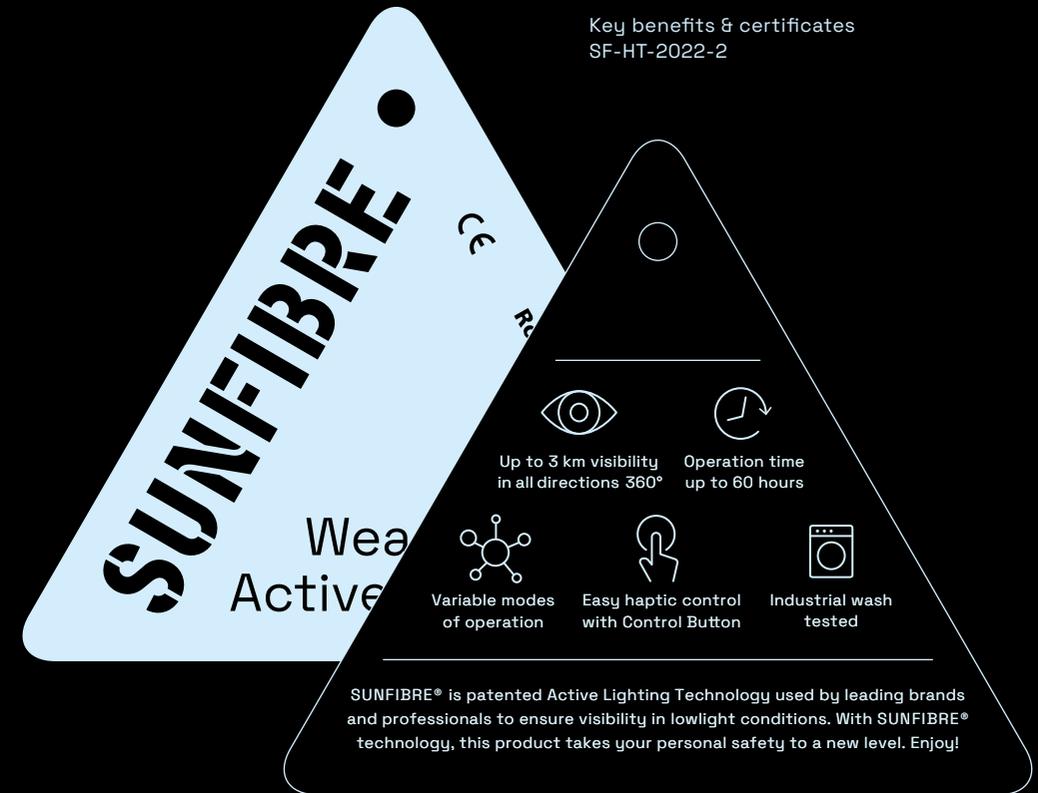
Hypalon seam label

2-sided
black, tone in tone
SF-JTL1188-BB



Hang tag

Key benefits & certificates
SF-HT-2022-2



Note: All items on this spread are 1:1 in real physical size

Colour Card

Colour abbreviations

CW	Cool White
AR	Amber Red
BL	Blue
GR	Green
IR	Infra Red (850, 940 nm)
HV	High Visibility

Textile colour

Approx. tone Code

Bright White	H000
HV Yellow	H115
HV Orange	H215
HV Red	H325
Silver Grey	H850
Rescue Red	H327
Swedish Blue	SF01
Military Green	SF02
Neon Green	H615
Candy Pink	H332
Gold Mist	H712
Blue Lagoon	H650

STANDARD Colours — always available on stock for small series or sampling.

SAMPLING Colours — always available on stock for sampling.

LED diode colour

Recommended

CW
CW
AR
AR
BL
AR
BL
AR
IR
CW
CW
CW
CW

SPECIAL Colours — Didn't find your colour? Never mind, we will test and deliver the colour of your choice in max. of 10-15 weeks.