

**Reflectil**  
High Visibility Products

We deliver

# HIGH VISIBILITY



Professional



Customized Vests



Sport & Leisure



Materials



# Reflectil



*This hang tag is the symbol of Reflectil – a small sized, international company that manufactures high visibility products. We do it with passion. With our own design team and in our own factory, we can quickly turn around to meet your demands and changing needs. We move fast.*

*Tag along and see what Reflectil is all about.*

## **We provide the expertise**

*Present us with a challenge and you will see for yourself! Designing and developing compliant, lightweight and high visibility garments, reflective materials and reflective accessories is in our genes.*

*To get the message across all the way to the end users, we are happy to provide our distributors with the necessary sales support, training and sales tools needed.*



## **We certify every single product in our own name!**

*We like control. Especially when we see what is out there in the market. Unfortunately, it is not possible to see if a vest fulfils the necessary requirements with your bare eyes. One might believe that because a vest bears the CE mark, you can trust that it fulfils the CE mark requirements. This is not always the case!*

*When the product is from Reflectil, you can! We take quality and safety into account throughout the whole process, from the design stage, until the product is ready for use. From the start, we take into account all of the requirements necessary to fulfil the certification requirements. We then develop, source and certify our raw materials. Finally, we certify all our products ourselves, using independent well-known accredited test-institutes. We can present you with the correct documentation for a product upon request. It does not take 4 weeks, you can have it the same day!*



# Visibility products for your personal safety

## We always keep a **wide range in stock**. That means fast deliveries!

*Our claim is that no other supplier can offer the same product range and level of service as Reflectil. We stock hundreds of vests, reflective accessories and reflective materials locally on the shelves ready for shipment.*

*In addition, at our own factory in Portugal, we have our vast European stock to serve customers all over Europe and to secure a continuous flow of goods into the service stocks.*



## We specialize in **specials**

*We like it when things are not standard. We enjoy the challenge and the satisfaction involved when turning your initial ideas into a fully developed, cost efficient and certified garment which fulfils its purpose during practical use.*

*We enjoy being a part of our customers product development process from the beginning. You can use us as external expertise because we know everything there is to know about how to develop and certify a lightweight high visibility garment from scratch!*

*You would not be the first to do so! Some of the most demanding customers have turned to Reflectil for assistance. We have developed products together with the Police and Army in Norway and Sweden, The Norwegian Red Cross, The Swedish and Norwegian ambulance services and fire brigades to just mention a few. In addition, a high-end German motorcycle company, a Norwegian motorcycle association, a Swedish car manufacturer, and several major Nordic work wear retail chains have been working with Reflectil to develop the product that best fits their needs.*

*So, what can we do for you?*





# Symbols & Properties

Below and to the right are product descriptions and symbols used to describe product properties in the catalogue. Larger photos are available on [www.reflectil.com](http://www.reflectil.com).



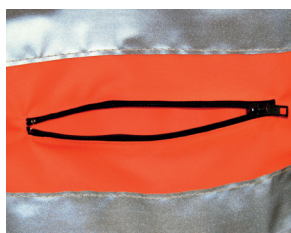
### Velcro closure

The vest has velcro (hook and loop) closure.



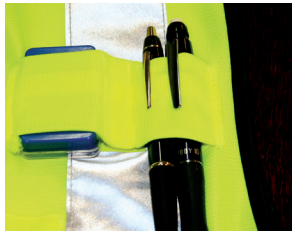
### Large Velcro Pockets

Excellent for storing notebooks, cell phones or pens.



### Pockets with zipper

Available in different varieties and sizes.



### Radio support/holders

Available in a single or double version. Can also be used as a holder for radios, pens or for other purposes.

## Pick the right size!

To choose the correct garment size, we provide a measurement chart with A (Length) and B (Width) measures for all garments. These tables are product specific and available on the web page. Please consult this guide for the garment you have in mind. The chart makes it easier to find the correct size if you change from one model to another. All products can be custom made to the correct size.



Size	A (cm)	B (cm)
S	68	59
M	71	63
L	74	67
XL	77	71
XXL	80	75
3XL	83	79
4XL	86	83



### CE marking and relevant norm

Relevant norm is described.



### Resistance to heat and flame

Certified and approved garments that protect the user when exposed to heat and flames.

There are two different standards for protection against heat and flame:

- Standard EN ISO 14116 Index 1 (formerly EN 533): The garment provides protection against accidental and short contact with open flames. The standard specifies the performance requirements in order to reduce the possibility of the clothing burning and thereby constituting a hazard in itself.
- Standard EN ISO 11612: A1,B1,C1 (formerly EN 531): Garment resistant to fire and flame spread, protection against convective heat and radiant heat has been tested and approved.



### Antistatic properties

Antistatic properties EN 1149-5.

Certified and approved garment that protects against electrostatic discharge.



### Cleaning instructions

Recommended number of washing cycles the garment has been tested and approved for. These instructions partially indicate the garment quality/durability.

Recommended washing temperature: Follow this carefully or garment visibility may suffer.

Tumble drying: A few of the vests can be tumble dried, most of them cannot.



### Zipper closure

Some vests are equipped with heavy duty zippers (you will find this information in the product description text).



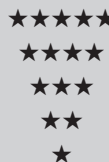
### Stretchable and breathable material

The material absorbs and carries moisture away from the skin. The fabric also has elastic tensile properties. This contributes to an increased level of comfort for the user of the garment.



### Reflective material applied with heat transfer

On some vests the reflective material used is heat transfer material instead of sew-on material. The reflective heat transfer material is integrated into the fabric and provides a more flexible garment with an increased level of comfort.



### Star indication

Indicates the cumulative properties of the product, beyond that of visibility (controlled by standards and class, see page 43). A vest with one star is a simple and affordable option, while vests with five stars have many additional features and benefits.





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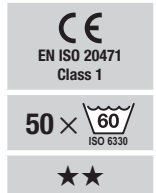
# PROFESSIONAL VESTS & GARMENTS





## EN ISO 20471 Class 1

Provides the lowest level of visibility. May provide sufficient protection where the risk level is low. Since the background colour requirement in this class allows for the use of many alternative colours in addition to the fluorescent colours, these garments are also used for other purposes than visibility. e.g. to distinguish between different functions or roles.



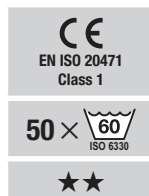
### 102 STD Blue/Yellow

#### Two colours

Holders on shoulders and loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130 & 110 g/m<sup>2</sup>



### 102 STD Grey/Orange

#### Two colours

Holders on shoulder front, two velcro pockets and loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130 & 160 g/m<sup>2</sup>



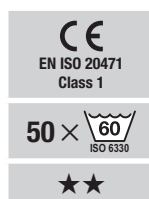
### 113 FOR

#### Working vest with mesh

Three pockets (3D with velcro closing), size adjustable, loops for belt, loop for hanging, mesh on upper part of the back for increased comfort, elastics on the sides for that extra size adjustment. Extra durable dirt and oil repellent fabric.

**Sizes:** S - 3XL

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup> & Mesh



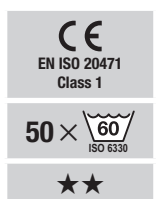
### 123 STD

#### Snug fit

Holders on shoulder front, extra strong zipper, strong elastic bands on the side for perfect fit and loop for hanging.

**Sizes:** XS - 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



### 131 STD

#### Robust for rough work conditions

Made of extra heavy fabric, suitable for carrying heavy stuff in the pockets (keep shape). Transparent-pocket for ID cards, pen pocket, holders on shoulder front, shoulder insignia flaps and simple hanger. Fabric is teflon treated to be oil and dirt repellent.

**Sizes:** XXS-S (M-3XL Class 2 - Model 231)

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>



## EN ISO 20471 Class 2

Provides the intermediate level of visibility. Most often, this level of visibility provides sufficient protection for most users and areas of use. Examples of areas of use are construction sites, car parks, airports, harbours, loading bays and railroads in areas where class 3 is not required.

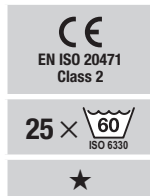


### 203 Basic and economic

Velcro closure.

**Sizes:** One-size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



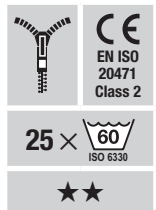
### 203 FBAG

**Vest in bag – for the car or for promotional use**

Basic garment in printable and compact fabric bag. Velcro closure. The fabric bag can be bought individually.

**Sizes:** One-size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



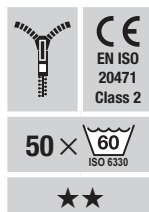
### 213

**Economic garment with zipper closure and great fit!**

Available in all sizes. Holders on shoulder front and Loop for hanging.

**Sizes:** XS – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



### 213 Mesh

**Fabric Certified Garment**

Loop for hanging.

**Sizes:** XS – XXL

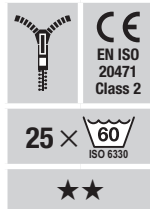
**Fabric:** 100% Polyester, Mesh



### Mesh Certified Fabric

Reflectil has a mesh certified fabric in the EN ISO 20471 norm, and apart of the model 213 MESH on the side, most of our standard models can be produced with that fabric while maintaining the CE mark and certification. Contact us for more information.





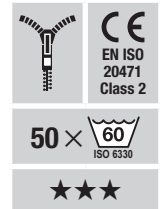
**233**

**Two reflective bands and braces with zipper closure**

Available in all sizes. Holders on shoulder front and loop for hanging.

**Sizes:** XS – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



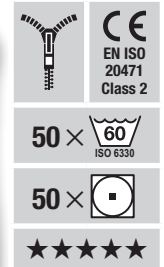
**223 STD**

**Great fit, two zip-pockets and radio supporters/holders**

Available in three colours. Internal pockets with zipper closure. Holders on shoulder front and loop for hanging.

**Sizes:** S – 7XL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



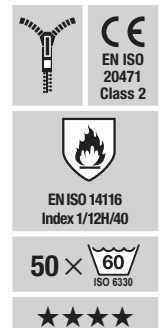
**223 HQ**

**High quality material & two large pockets.**

Professional garment with holders on shoulder front. Large pockets with Velcro closure. Extra strong zipper closure and loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



**223 FR**

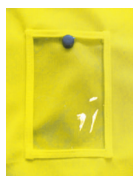
**Flame retardant: Limited flame spread**

Many sizes available, with holders on shoulder front. Two large pockets with Velcro closure. Loop for hanging.

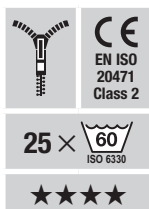
**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>





ID-pocket



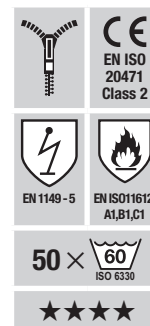
## 223 HEX

### Quality garment with six pockets and ID card pocket

A garment made with robust fabric, transparent pocket for ID cards, holders on shoulder front. Available in many sizes. Extra heavy zipper. Loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 165 g/m<sup>2</sup>



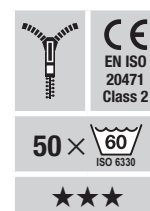
## 223 FR+AS

### Flame retardant and antistatic properties

Limited flame spread and protection against convective and radiant heat. Zipper closure and holder front on shoulders. Internal pockets with zippers. Loop for hanging.

**Sizes:** S – XXL

**Fabric:** FYL - CO/MA/VI/AS, 250 g/m<sup>2</sup> | FOR - PES/MA/CO/VI/AS 290 g/m<sup>2</sup>



See more information at [www.reflectil.com](http://www.reflectil.com)

## 206

### Garment with pre-defined panel for colours

Provides great flexibility and possibilities for corporate identity purposes. Choose from three different fluorescent colours and 18 different fabric colours for shoulder section. Loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130/110 g/m<sup>2</sup>



## 231

### Robust for rough work conditions

Made of extra heavy fabric, suitable for carrying heavy stuff in the pockets (keep shape). Transparent-pocket for ID cards, pen pocket, holders on shoulder front, shoulder insignia flaps and simple hanger. Fabric is teflon treated to be oil and dirt repellent.

**Sizes:** M-3XL (XXS-S Class 1 - **Model 131**)

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>



# EN ISO 20471 Class 3

Class 3 provides the highest level of visibility, often used in high risk situations such as in heavy traffic.



	CE EN ISO 20471 Class 3
25 ×	 ISO 6330
★★	

## 306 STD

### Short sleeved style with zipper

Large pockets with zipper closure, holders on shoulder front and loop for hanging.

**Sizes:** M – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



	CE EN ISO 20471 Class 3
EN ISO 14116 Index 1/12H/40	
25 ×	 ISO 6330
★★★★	

## 306 FR

### Flame retardant: Limited flame spread

Two large pockets, holders on shoulder front and loop for hanging.

**Sizes:** M – XXL. 3XL and 4XL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



## Visibility

The human visual system is a complex science. There are many aspects involved from when a person first detects an object until a person can identify exactly what something is. In current norm making, form and movement recognition are central concepts. By combining the properties of fluorescent and reflective materials together with design requirements, the correct garment for the right purpose can be constructed.

What is then the difference between fluorescent and reflective materials? Read more on page 11.

## Fluorescent Colours

Put very simply - fluorescent materials used in PPE are materials that absorb UV light. UV light is not visible to the human eye. The material then emits the light in a longer wavelength visible to the human eye. UV light is only visible during daytime conditions.

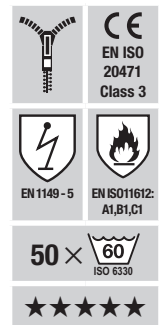
The most striking effect of fluorescence occurs at dusk and dawn. For the purpose of PPE and CE marking, the colours providing conspicuity are clearly defined. It is then up to the user to choose the colour giving the best contrast to the environment for the intended area of use. As an example, orange may provide better contrast against a snow covered background than yellow.

## Reflective Material

Retroreflective materials are materials that reflect light or other radiation back to its source.

The use of reflective materials provides night time conspicuity of the wearer so they are safely and effectively visible in the light of an approaching driver's headlamps. Best effect is achieved when there is a small angle between the light source directed towards the material and the viewer.

Minimum performance levels are defined for PPE and CE marking purposes. Current technology allows the use of microprismatic and glass bead type materials.



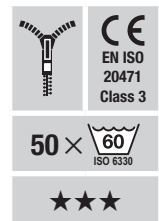
### 306 FR+AS

#### Flame retardant and antistatic properties

Limited flame spread and protection against convective and radiant heat. Holders on shoulder front and loop for hanging.

**Sizes:** M – XXL

**Fabric:** FYL - CO/MA/VI/AS, 250 g/m<sup>2</sup> | FOR - PES/MA/CO/VI/AS 290 g/m<sup>2</sup>



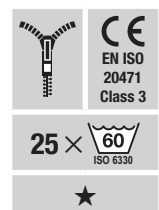
### 313

#### Long sleeves and two pockets

Available in many sizes. Internal pockets with zipper closure. Holders on shoulder front and loop for hanging.

**Sizes:** S – 4XL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



### 327

#### Cost-efficient one-size vest

Zipper and loop for hanging.

**Sizes:** One-size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



# T-shirts & Sweaters

Functional 'breathable' materials with excellent tensile properties and reflective tapes in heat transfer materials resulting in garments that are comfortable to wear, especially during heavy work in hot conditions.



CE  
EN ISO 20471  
Class 2

35 x 60  
ISO 6330

HEAT TRANSFER

★★★★★

## 218 CT

### T-shirt with great comfort

This T-shirt comes with a "square pattern" heat transfer reflective material for even more comfort.

The fabric is breathable and stretchable. Available in several different sizes.

**Sizes:** XS - 3XL

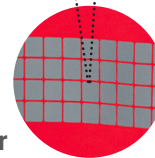
**Fabric:** 100% Microfiber Polyester, 170 g/m<sup>2</sup>

## 318 CT

Also available in Long Sleeves version

**Sizes:** S - 3XL

Unique square pattern reflective material providing even better stretch and breathability!



CE  
EN ISO 20471  
Class 2

35 x 60  
ISO 6330

EN 1149-5 EN ISO 11612: A1, B1, C1

HEAT TRANSFER

★★★★★

## 218 FR+AS CT

### Flame retardant and antistatic properties

Limited flame spread and protection against convective and radiant heat.

Our model 218 FR+AS is made with inherently self extinguishing Protex modacrylic fibres. There is no deterioration in flame retardancy after either repeated washing or normal use over time. Reflective material in heat transfer makes the T-shirt very comfortable.

**Sizes:** XS - 3XL

**Fabric:** Mod.Acrylic/Cotton, 220 g/m<sup>2</sup>

## 318 FR+AS CT

Also available in Long Sleeves version

**Sizes:** S - 3XL





# PROFESSION SPECIFIC VESTS

*In this section you will find vests that have been developed to suit the needs of a specific domestic function or role. Typically, these vests are designed or regulated by a public authority to meet specific requirements. The items in this section are mostly stocked.*





### Norwegian Industrial Safety

These Vests are worn by an enterprise's own First-Response Teams. By following an Industrial Safety System (Industrivernet) an enterprise can respond to emergencies quickly such as personal injury, fire, the escape of gas or hazardous chemicals before the emergency services arrive on the scene. The vest design is made to comply with the demands and regulations relating to industrial safety and emergency preparedness as defined by the Norwegian Industrial Safety Organisation (NSO).



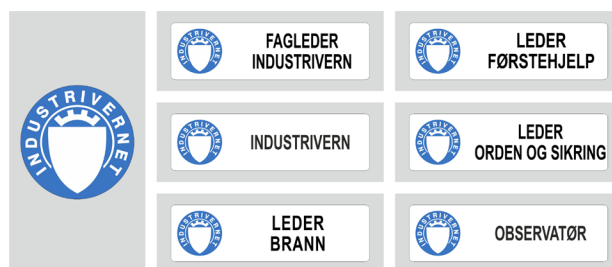
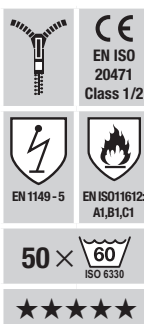
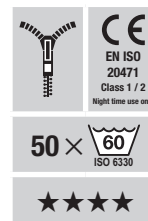
### Industrivernet - Standard

#### Models 101-201-501 STD

Made in lightweight material. Two big pockets with extra tough velcro closures for ample space. Two radio holders to support communication equipment. Radio pocket. Loop for hanging. CE Marking EN ISO 20471 Class 1 or Class 2 or Nighttime use depending on the specific model and size.

**Sizes:** XXS – 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



### Industrivernet - FR+AS

#### Models 101-201 FR+AS

Made in flame retardant and anti static material. Clear printed reflective materials. Two big pockets with extra tough velcro closures for ample space. Two radio holders to support communication equipment. Radio pocket. Loop for hanging. CE Marking EN ISO 20471 Class 1 or Class 2 depending on the specific size.

Available in Fagleder, Leder Brann, Industrivern and Leder orden og sikring.

**Sizes:** XXS – 4XL

**Fabric:** FYL - CO/MA/VI/AS, 250 g/m<sup>2</sup> | FOR - PES/MA/CO/VI/AS 290 g/m<sup>2</sup>

### Helmet Logos Industrial Safety

#### Printed & Cut Reflective Sheeting

- Colour:** White
- Retroreflection:** 8 %
- Durability:** 5-7 Years
- Applying instructions:** Apply to helmet when surface temperature and air temperature is above 10 °C.
- Supplemental information:** Adhesive will not damage helmet surface.
- Sizes:** 2,5 × 9 cm

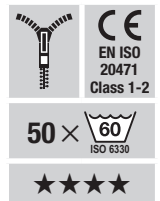




## Norwegian Emergency Services

The products in this section are developed for the Emergency Services and according to the guidelines described in the handbook issued by the Norwegian Directorate for Civil Protection (DSB).

The products are made in a basic/lightweight and premium/robust versions to accommodate the different needs. The garments have removable and interchangeable text plates.



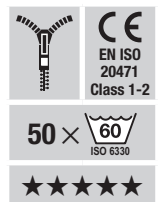
### Lightweight Vests Range

#### Model 101-201 BRVB

Made in lightweight material with pre-defined basic features to support the most important needs of the emergency services: Two radio holders to support Tetra communication equipment as default but optional radio holder alternatives are molle, klick fast system, or no phone holder system. Two big pockets with extra tough velcro closures for ample space. Loop for hanging. Removable/interchangeable plates.

**Sizes:** XXS - 4XL (EN ISO 20471 Class 1 for XXS-S and Class 2 for M-4XL)

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



### Heavy-Duty Vests Range

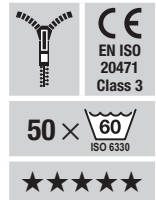
#### Model 101-201 BRVP

Made with heavier material to best support the needs of storage and heavy communication equipment in the emergency services. Two radio holders to support Tetra communication equipment as default but optional radio holder alternatives are molle, klick fast system, or no phone holder system. Two big pockets with extra tough velcro closures and ample space. Loop for hanging. Removable/interchangeable text plates.

**Sizes:** XXS - 4XL (EN ISO 20471 Class 1 for XXS-S and Class 2 for M-4XL)

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>





## Heavy-Duty Jackets Range

### Model 301 BRJP

Product features as heavy duty vests. In addition: Visibility to the highest level in EN ISO 20471: Size adjustment possibilities to better support the different needs of clothing worn under the jacket during summer and winter (garment width and sleeve width). Detachable markings on the sleeves and larger pockets are an extra option on jackets. Contact us to discuss possibilities for this.

**Sizes:** M - 4XL

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>

## Removable and interchangeable text plates

Both the premium and basic range products are equipped with velcro solution on the chest and back to accommodate our standardized text plates.

The text plates are in red, black or blue background material printed with EN ISO 20471 high performance Reflective silver material for best day and nighttime effect. The measures are standard 350mm x 100mm on the back and 150mm x 50mm on the chest. Both standard/common texts and special texts down to one unit can be supplied.

**Red plates/Crew:** Brann, Redning

**Red plates/Sub-commander:** Utrykningsleder, NK Utrykningsleder, Dykkerleder, Redningsleder, Beredskapsleder, Røykdykkerleder, Redningsdykkerleder

**Black plates/Commander:** Innsatsleder, NK Innsatsleder, Utrykningsleder, NK Utrykningsleder.

**Blue plates:** Lederstøtte



## High Visibility Jacket for Traffic Routing

### Trafikkdirigeringsvest

#### Model 320

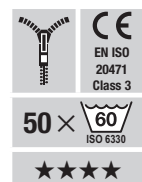
The jacket is made in high quality durable material.

Logos and other markings should be limited to an area on the left sleeve to max 3 x 9 cm or 4 x 6 cm.

Specified by The Norwegian Public Roads Administration (Statens Vegvesen- Trafikkdirigering: Håndbok N301 Arbeid på og ved veg/R 310 Trafikksikkerhetsutstyr, tekniske krav/NA-Rundskriv 2015/12).

**Sizes:** S – XXL

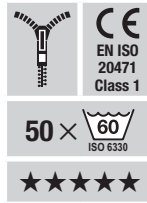
**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>







Laser engraving on the shoulder strap



## Community Support Officer

### Model 123 OV - Ordningsvakt - Class 1

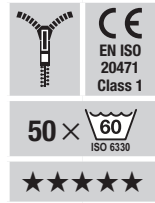
A vest with Blue-Grey logo plates with the text "ORDNINGSVAKT" or "SKYDDSVAKT" in silver reflective material front and back. Police Authority approved laser engraved OV logo on the shoulders straps (only on the "ORDNINGSVAKT" version). This vest is similar to the new Hi-vis vest worn by the Swedish Police. **Features:** Laser engraving on the shoulder, holders on shoulder front, extra strong zipper, strong side elastic bands for the perfect fit, loop for hanging.

**Sizes:** XS – 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



Laser engraving on the shoulder strap



## Community Support Officer (Teflon)

### Model 123 OV TF - Ordningsvakt - Class 1

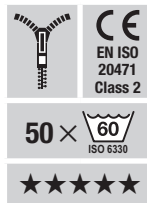
This vest is like Model 123 OV but with two extra features. The fabric is Teflon coated for heavy dirt and oil repellency. The vest also has two Velcro closed pockets. **Features:** Laser engraving on the shoulder, holders on shoulder front, extra strong zipper, strong side elastic bands for the perfect fit, loop for hanging.

**Sizes:** XS – 4XL

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>



Laser engraving on the shoulder strap



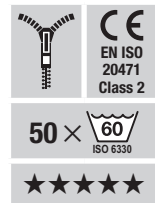
## Community Support Officer

### Model 202 OV - Ordningsvakt - Class 2

This vest has Blue-Grey logo plates with text in silver reflective material front and back and includes laser engravings on the shoulder straps, with the Police Authority's approved OV logo. Holders on shoulder front, two large velcro closed pockets, chest pocket for mobile etc, extra strong zipper and a loop for hanging. Also equipped with velcro on shoulders for easy attachment of the Reflectil Arm Band.

**Sizes:** S – 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



## Protection Guard

### Model 202 SV - Skyddsvakt

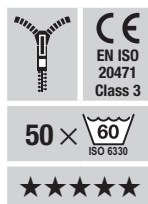
This vest is like Model 202 OV but is used by to secure strategic objects under the Swedish terrorist legislation (2 § terroristlagen 2003:148). This vest has Blue-Grey logo plates with text in silver reflective material front and back and includes laser engravings on the shoulder straps, with the Police Authority's approved SV logo. Holders on shoulder front, two large velcro closed pockets, chest pocket for mobile etc, extra strong zipper and a loop for hanging.

**Sizes:** S – 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



Laser engraving on the shoulder strap



## Community Support Officer

### Model 302 OV - Ordningsvakt - Class 3

This jacket has Blue-Grey logo plates with text in and silver reflective material front and back. This model includes laser engravings on the shoulder straps with the Police Authority's approved OV logo, holders on shoulder front, chest pocket for mobile etc, Two large velcro closed pockets, an extra strong zipper and a loop for hanging.

**Sizes:** S – 4XL

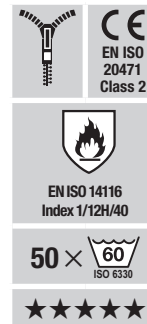
**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>

### Add on the arm band for the vest Community Support Officer or Protection Guard

These arm bands are to show and make it possible to identify the function of the arm band wearer. Either in single use without the vest or in combination with the vests mentioned above to enhance the function of the vest wearer.







**Rescue Services**

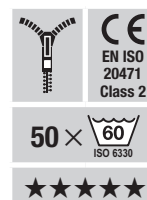
**Model 227 - Räddning**

Red plate with the text "RÄDDNING" in silver reflective material front and back, "RÄDDNINGSLIDARE" has also got the red chess pattern reflective stripes over the shoulders. The vest are designed for easy access to the pockets on the rescue outfit.

Extra strong zipper and loop for hanging. The vest can also be printed with other text to describe the function of the person wearing this vest.

**Sizes:** S/L and XL/3XL (adjustable)

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



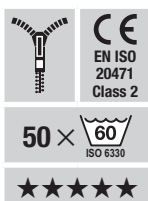
**Rescue Services - Multi function**

**Model 230 - Räddning**

Removable/turnable red plate for description of multi-function of the person wearing the vest with the text "RÄDDNING", "RÄDDNINGSLIDARE" has also red chess pattern reflective stripes over the shoulders. Two radio pockets, holders on shoulder front, pockets on the inside, two 3D pockets, pen pocket, holder for gloves, two D-rings and loop for hanging.

**Sizes:** S - XXL

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>



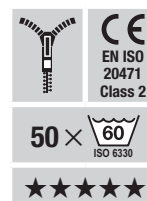
**Paramedics**

**Model 202 - Sjukvård**

Extra durable fabric, extra strong zipper, chest pocket, two large velcro closed pockets, internal pockets with zipper, holders on shoulder front and loop for hanging. Green plate with silver reflective text to show function. Can be ordered with green chess pattern over the shoulders to indicate a leader function.

**Sizes:** S - 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



**Paramedics - Reversible**

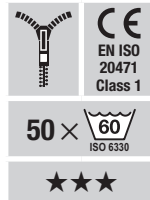
**Model 202 - Sjukvård**

Green plate with text outside and inside "SJUKVÅRDSLIDARE/STAB" alternatively, "MEDICINSKANSVARIG/AVTRANSPORT ANSVARIG". Extra durable fabric, extra strong zipper, chest pocket, two large velcro closed pockets, internal pockets with zipper, holders on shoulder front and loop for hanging.

**Sizes:** S - 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>





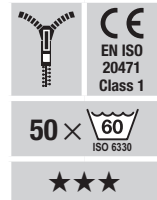
## Crisis Management/Social Care

### Model 102 POSOM

POSOM (psykiskt- och socialt omhändertagande) delivers mental and social care in the event of accidents and disasters and is a contingency group that can be called upon to support the victim at short notice. Text POSOM in orange front and back. Extra durable fabric, extra strong zipper, two large velcro closed pockets, holders on shoulder front and loop for hanging,

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



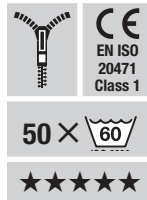
## Volunteer Resource Group

### Model 102 FRG

FRG (Frivilliga Resursgruppen) is the voluntary group in the municipalities. The vest is designed accordingly to the directives given by the Swedish civil defence department. FRG logo front and back, the leader vest has yellow fabric over the shoulders to mark this function together with the text "LEDARE" on the chest. The city name can be added. Zipper closing, holders on shoulder front and loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



## High Visibility Outer Shell for C.P.E. Ballistic Panels

### Model 141

The vest outer shell can be delivered with or without the panels. For more info regarding the C.P.E. panels see below.

In extra durable dirt and oil repellent Teflon fabric. Extra strong zipper, holders on shoulder front, adjustable in height and width. Double sizing in order to secure the perfect fit no matter the clothing worn underneath. Extra secure width locking to prevent the panels overlap to open up.

**Sizes:** S/M – L/XL - 2XL/3XL - 4XL/5XL

**Fabric:** 80/20 Polycotton with Teflon treatment, 270 g/m<sup>2</sup>

## Information Ballistic Panels

Manufacturer C.P.E.

C.P.E. Production is one of the leading manufacturers of personal protective equipment in Europe. CPE® has become the natural choice of equipment for several NATO forces, national terrorism enforcement units, police and protection services throughout the free world.

CPE® has developed a new concept for ballistic protection where the Diamond Line is the choice for users who request maximum protection with minimal weight and thickness on the ballistic panel.

### Classification NIJ IIA (RPS 1 in Sweden)

They are:

- > 25% thinner than NIJ IIA Standard
- > 25% lighter than NIJ IIA Standard
- > 25% better trauma protection than NIJ IIA Standard

Protection Panels in protection class NIJ IIA consists of 24 layers made of 100% Dyneema SB60 fiber whose properties make the material 15 times stronger than steel and 40% stronger than Aramid fiber. This is one of the most strongest synthetic fibers manufactured today. The Diamon Series is made in a newer form of Dyneema, making it thinner and lighter than the standard panels.

### Classification NIJ IIIA (RPS 2 in Sweden)

They are:

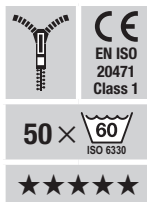
- > 25% thinner than NIJ IIIA Standard
- > 25% lighter than NIJ IIIA Standard
- > 25% better trauma protection tahn NIJ IIIA Standard

Protection Panels in protection class NIJ IIIA consists of 38 layers made of 100% Dyneema SB71 fiber whose properties make the material 15 times stronger than steel and 40% stronger than Aramid fiber. This is one of the strongest synthetic fibers manufactured today. The Diamon Series is made in a newer form of Dyneema, making it thinner and lighter than the standard panels.

### Dyneema Plates

The NIJ IIA and IIIA ca be supplemented with a Dyneema plate (24x16)cm this add-on means that the vest will protect the vital organs against even heavier hard-knocked ammunition. More inf regarding the choice of panels and plates can be retrieved by contacting Reflectil.





## Model 123

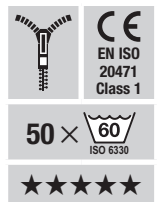
### Optional plate colour and text

Vest for security personnel "VÄKTARE" or other function. This vest can also be delivered in the Teflon fabric version, please see vest model 123 OV TF. Extra durable fabric, holders on shoulder front, black plate with silver reflective text to show function, loop for hanging (Teflon version also have two velcro pockets).

Can be ordered with color chess pattern over the shoulders to indicate a leader function.

**Sizes:** S – 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



## Model 202

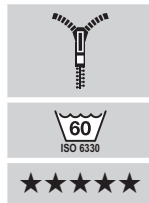
### Optional plate colour, text and chess pattern

Vest for security personnel "VÄKTARE" or other function. Extra durable fabric, extra strong zipper, chest pocket, two large velcro closed pockets, holders on shoulder front and loop for hanging. Black plate with silver reflective text to show function.

Can be ordered with color chess pattern over the shoulders to indicate a leader function.

**Sizes:** S – 4XL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



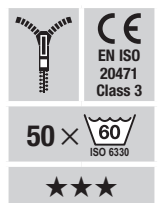
## Rapid Reaction Harness

### Model 536

Advanced multi use harness for rough environments. Paramedics, hunters, mountain rescue, etc. Radio pocket, pen pocket, five Teflon fabric pockets on the front (with inside loops for securing the equipment inside) and one large Teflon pocket on the back with a removable reflective plate that can be printed on. The harness is made from extremely durable mesh fabric. Size adjustable on both sides and extra strong zipper.

**Sizes:** One-size

**Fabric:** Black mesh 350 g/m<sup>2</sup>, Teflon fabric (harness black, pockets in yellow or orange)



## Road Constructions

### Model 313 - VAKT

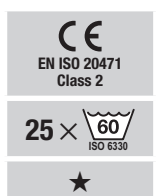
To be used when working with road constructions.

Complies with the Swedish Transport Administration authorities.

Thin hi-vis jacket with text on the chest and back, two zipper pockets, holders on shoulder front and loop for hanging.

**Sizes:** S – 4XL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



## Evacuation Responsible and Visitors

### Model 203 - UTRYM - UTRYM LEDARE - BESÖKARE

Orange vest for evacuation leaders has the text on back and chest "UTRYMNINGSLEDARE".

Yellow/Orange vest for leader reassembly place has the text on back and chest "LEDARE ÅTERSAMLINGSPLATS".

Yellow vest for visitors has the text on back and chest "BESÖKARE".

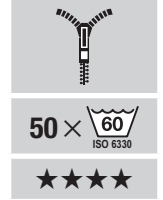
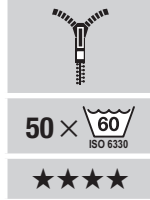
Velcro closing, loop for hanging.

**Sizes:** One-size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



Reflectil has developed two specific models for “Authorities”, which allow the most varied customizations, ranging from the bias colors, color and pattern of the print on the reflector, fabric colors, logos, etc. Contact us for more information!



## “Authorities” - Multi Function

### Model 534 - WPS

Side adjustment with metal springs. Bottom openings for belt equipment. Top opening for shoulder marks. Loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>

## High Visibility “Authorities” - Multi Function

### Model 534 - NPS

Bottom openings for belt equipment. Top opening for shoulder marks. Loop for hanging.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>

Possibility of choosing the colors of the different materials, in order to adjust the colors of the vest to the Corporate Identity in question.

Side adjustment system with metal springs to allow the vest to be worn over a jacket or over a shirt, thus creating a more correct fit / comfort in both situations.

Top openings for placement of shoulder marks.



Openings for belt equipment.



Examples of fabric colors that can be applied to the bottom of the vest in order to maximize the customization / Corporate Identity required.



# Garments, Arm Bands & Caps for Marking

Garments and arm bands are often used to mark different functions within a group of people. Common areas of use are in industry, for events and for corporate identity purposes.

The intended use for these products is not to provide around the clock visibility for the user. Observe comments for each product for more information.



## 513

### Tabard for events

Suitable for shorter usage periods such as commercial events or similar situations. Several printing options available, including multi color runs. The vest is open at the sides with elastic and velcro closure. **Please note!** These vests are NOT CE-marked.

**Sizes:** One-size

**Fabric:** 100% Polyester, 110 g/m<sup>2</sup>



## 507

### Basic style for events and corporate identity

Zipper closure. Loop for hanging.

**Children's Sizes:** XXS (1-4 Age), XS (4-6 Age) and S (6-10 Age)

**Adult Sizes:** M - XXL

**Fabric:** 100 % Polyester, 110 g/m<sup>2</sup>



Choose from 18 fabric colours!



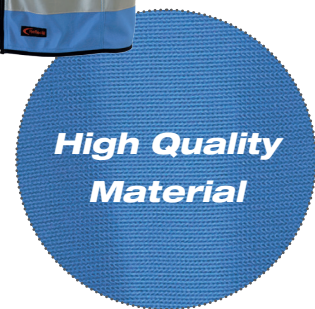
## 510

### Vest with pockets and radio supporters/holders

High quality materials including extra strong zipper closure. Two pockets with velcro closure. Holders on shoulder front and loop for hanging. Wide range of usage situations.

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>







New, improved closing mechanism!

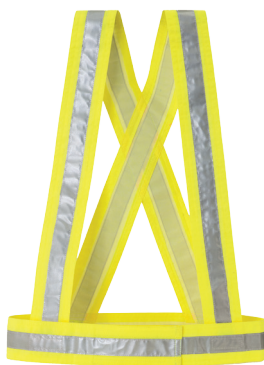
## 705

### Armbands for industrial use and other events

Made of high quality material. Strong buckle and elastic bands provides a good fit. Wide range of uses. Can be made with prints and ID-pockets.  
Measure: 15 x 28 cm.

**Sizes:** One-size

**Fabric:** 100% Polyester, 160 g/m<sup>2</sup>



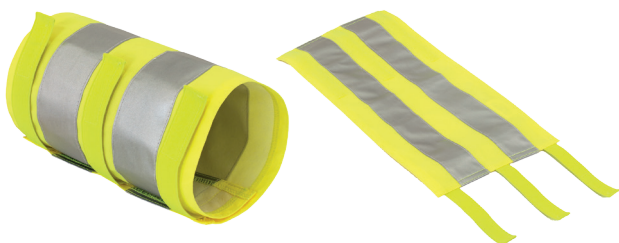
## 715

### High Visibility Suspender

Closes with velcro.

**Sizes:** One Size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



## 761

### High Visibility Legband

Closes with three adjustable velcros.

Measure: 42 x 22 cm.

**Sizes:** One Size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>







# CUSTOMIZED VESTS

*This section shows examples of customer specific vests, made to unique demands and requirements. Reflectil has the expertise to develop CE marked customized lightweight high visibility garments.*



## NGO Vest for Field Work in Warm Conditions

**(UN OHCHR in this example)** This vest is developed specifically for the needs of field workers in Non Governmental Organizations (NGO). Many organizations have the need for a High Visibility vest with a tight fit that can carry all the items necessary for field work and is also comfortable to wear in warm climates. A good example of a vest designed by Reflectil to fit many specific demands, at the same time as being a high visibility garment complying with the requirements of EN ISO 20471.

**Carrying**  
Ten pockets, in various sizes to carry everything from mobile phones, to tools and water bottles.



**Branding & Recognition**  
Branding and visibility is highly important so that field workers can be easily identified.

**Exclusive Details**  
Laser engraved branding, emphasizing the authenticity of the organization and the field worker.



**Comfortable materials**  
The need for comfort is high. The fabrics are heavy enough to carry the weight of the things brought along, yet sufficiently thin to allow for low vapour resistance, lowering perspiration.

**Comfortable Design**  
To make a tight, but also flexible, fit to the body, elastic fabrics have been used in different parts of the vest.

## Norwegian Prosec Special Vest

This vest was developed to meet the unique specifications of our distributors. The vest needed to be different from everything else found on the market. The vest is mostly used for indoor sports events.

For this vest, Reflectil was in close contact with the customer, discussing what basic design ideas to follow, and then presented different proposals and solutions to find the perfect vest.

**Designed Pockets**  
Specific radio pockets were developed for this vest.



**Reflective Coloured Logos**

**Special Pattern**  
Black/fluorescent yellow chess pattern reflective material used.





**Reflectil is the Chosen Supplier for the Swedish Police**

For many years, Reflectil has been the chosen supplier to the Swedish Police. We know the needs in the tough environment where these vests are being used. We know the highest of demands from the Police and have been developing new models and accessories together with the Police for many years.



**Special Design**  
New shorter model design for maximal flexibility making it easier for the Police to use the vest together with their belt with tools and weapon.

**Distinct Branding**

**Tough Fabric**  
The demands from the Police are high. Reflectil source and develop the materials needed to fulfill the requirements.

**Norwegian Red Cross**

This vest is an example of a customer specific vest developed to fit a number of specific demands. It is certified EN ISO 20471 Class 2. It may inspire other professional organizations when developing products that fit their exact needs.



**Easy Identifying**  
To show the rank and grade of the Red Cross member, flaps for distinguishing marks are located on both shoulders and logos of rank are placed on the chest.

**24 hour branding**  
The vest is branded with a reflective multi colour logo for recognition during daytime conditions as well as when illuminated at night.

**User Friendly Pockets**  
The pockets are tailored to suit the Norwegian Red Cross' specific needs. Flaps and zippers are equipped with devices and pullers to make the pockets easy to open and close when using gloves.

**Durable**  
The vest is made of heavy duty high visibility fabric to be robust and last for a long time.





# SPORT & LEISURE

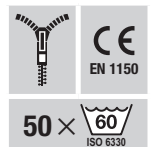
*This chapter shows vests and garments that are popular for sport and leisure situations. Some are very generic with a wide range of usage situations, while other are developed for a specific purpose.*



*We have a wide range of products in this category - from Children's vests, Running & Walking vests, to Dog Covers!*

*The vests for sport and leisure time are certified to EN 1150, the norm for visibility clothing for non-professional use.*

*Some are very suitable for printing/promotional purposes while others are more advanced or have a specific functional design leaving less area for logos.*



**404 STD**

**Classic style for sports and leisure**

Velcro closure with elastic bands provides for a partly adjustable size fit.

**Children's Sizes:** XXS (1-4 Age), XS (4-6 Age) and S (6-10 Age)

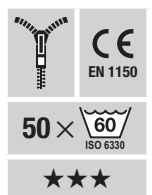
**Adult Sizes:** M - XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



**404 VLS**

Same model as 404 STD but with Velcro opening on the shoulders. available in Children's Sizes.



**407**

**Allround style for best fit**

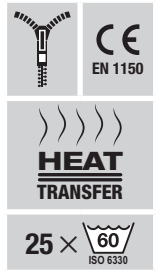
Developed to provide the best possible fit: the vest is "size insensitive". Zipper Closure. Loop for hanging.

**Children's Sizes:** XXS (1-4 Age), XS (4-6 Age) and S (6-10 Age)

**Adult Sizes:** M - XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>





**409**

**Exclusive design for activity and sports**

Mesh side panels for excellent air circulation. Specially designed pocket for iPod or other music devices with earplugs. Dedicated pocket for keys with a key security feature on lower left side.

Heat transfer reflective material. Loop for hanging.

**Please note!** Limited area for printing, according to norm standards. Contact us for minimum order quantity and delivery time

**Sizes:** S – XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



**412**

**Vest for jogging/leisure with front opening and dedicated area for print**

Transparent internal pocket to fit iPhone. Heat transfer reflective material. Loop for hanging.

**Sizes:** S - XXL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



**413**

**Comfortable sport vest for running and other activities**

Designed for maximum comfort for the active user.

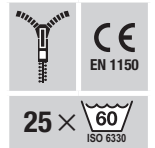
Zip opening in front and collar. Mesh panel in back. Very thin and lightweight material. Elastic reflex and loop for hanging.

**Sizes:** XS - XXL

**Fabric:** 100% Polyester, 75 g/m<sup>2</sup>







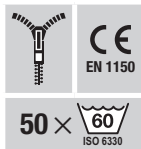
**415**

**Lightweight, urban vest for leisure**

Made of very light and thin material with zipper and collar.

**Sizes:** S - 3XL

**Fabric:** 100% Polyester, 75 g/m<sup>2</sup>



**515**

**Lightweight, urban vest for leisure**

Made of very light and thin material with zipper and collar.

**Please note!** CE/marked for night time use only.

**Sizes:** S - 3XL

**Fabric:** 100% Polyester, 75 g/m<sup>2</sup>



**708**

**Reflective dog vest**

Partial adjustable size with velcro closure.

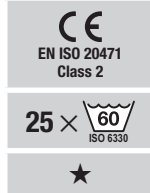
**Sizes:** Measure from the root of the tail to the neck.

XXS (15 cm), XS (23 cm), S (30 cm), M (40 cm), L (50 cm), XL (60 cm), XXL (70 cm)

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup> (we have other colours for this article)



In our product range there are products especially suitable for use with cars, two wheelers or other vehicles. Some products are used to be visible in traffic situations, others in case of an accident.



## 243 Compact Emergency Vest

**Compact vest for all situations with limited space available**

The vest is specially designed, made of very thin material and packed in a compact fabric bag in order to be as small as possible. Perfect to leave in the saddle compartment of a motor-cycle, the glove compartment of a car, in a bag or even a back pocket!

Can be ordered with your own text or logo printed on an adhesive sticker mounted on the bag.

**Sizes:** One-size

**Fabric:** 100% Polyester, 75 g/m<sup>2</sup>







## 203 FBAG

**Vest in bag – for the car or for promotional use**

Basic garment in printable and compact fabric bag. Velcro closure.

**Sizes:** One-size

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>



Examples of printing

## 411

**MC-vest developed for maximum comfort!**

Zipper cover to protect the tank from scratches. Elastic torso section and heat applied reflective material for maximum comfort. Reflective material in a classic MC pattern also applied to the shoulder section for optimal visibility. Loop for hanging.

**Sizes:** S - 3XL

**Fabric:** 100% Polyester, 130 g/m<sup>2</sup>

## Visibility and Risk

*Risk is defined as the probability of an incident occurring multiplied by the consequences of the incident ( $R=P \times C$ ). In a traffic situation there are several factors influencing personal visibility and the level of risk.*

*These factors include road conditions, weather and light conditions, density and complexity of traffic situations, driver distractions, condition and age of driver and speed of vehicle.*

*By using the adequate form of conspicuity aid, such as high visibility clothing, the probability of an incident occurring can normally be reduced significantly*



# Customize Any of Our Standard Vests with Any or All of These Options

By adding standard options to one of our existing models, you are able to “tailor” the vest to your customers’ needs. Choose between standard or additional options below!

The options are made with the same colour as the fabric of the vest and mounted onto the garments at our factory in Portugal. Normal deliver time is approximately 3-4 weeks. You can read more about the options available at [www.reflectil.com](http://www.reflectil.com).

**Standard options**  
minimum order 10 pcs

- Insignia flap
- Insignia flap
- Zipper puller
- Double pen holder
- Chess patterns - different colours and sizes
- Cut reflective material
- Additional options  
minimum order 50 pcs
- Laser engravings
- Transparent ID-pocket
- Double holder on shoulder front



## Print and Corporate Identity

Using heat applied logos or texts on the garments is a cost efficient way of adding branding, uniqueness and personalization. Spectacular night time effects can be created by using single or multicolour reflective logos or texts.



## Transfer Print Techniques


Print technique / Properties	Plotter Cut	Laser Cut	Laser En-grave & Cut	Digital Reflective	Digital Standard	Screen Standard	Screen Reflective		Screen Silver	Sublimation
Small Quantities	★★★	★★★	★★	★★★	★★★	★	★		★	★★★
Quick Delivery	★★★	★★★	★★	★★★	★★★	★	★		★	★★★
Washability	★★★	★★★	★★	★★	★★	★★	★★		★★	★★★
Reflectivity	★★★	★★★	★★★★	★★★	■	■	★★		★★★★	■
Colour Matching	■	■	■	★	★★	★★★★	★		★	★★
Application	★★★	★★★	★★★★	★★★	★★★★	★★★★	★★		★★	★
Colour Migration	★★★	★★★	★★★★	★★★	★★★★	★★	★★★★		★★	★
Complex design cut	★	★★	★	★	★	■	★		■	■
Complex design print	■	■	■	★★★	★★★★	★★	★★		★★	★★★

★★★ Very suitable ■ Not applicable

## Printable Area Related to the Norm

There is a limit to the total surface area of the background fabric that can be covered by print for the garment to still comply with the intended norm and class. The area available for print varies from model to model and for different sizes. The majority of our products are certified to allow for prints up to 200 cm<sup>2</sup>. If you need larger prints, please contact us for more details.





# REFLECTIVE MATERIALS

*Reflectil has a long time experience using reflective materials in their products and factory, therefore it's the right partner to supply them as raw materials.*

*Reflectil offers European safety garment manufacturers and garment decorators, reflective materials with a high level of service and specialized product solutions tailored to local market needs. Our reflective materials setup is based on Porto - Portugal, where we also have the garments and converting European factory, and where we control and test that our products are according to the defined product specifications using both our internal in-house laboratories and production machinery, and third party test institutes, to ensure a good stock quality control and continuous product development.*

*The market for professional clothing is in continuous development with new demands emerging from changing customer needs and preferences. Choosing the correct reflective material for a particular application is not always an easy task for the garment maker. Examples of supports are finding optimal application methods for transfer materials and supplying samples for customer specific garments and prototypes for tenders.*



# Sew-on Reflective Materials

Our range of EN ISO 20471 reflective sew-on tapes are the preferred choice for many professional work wear manufacturers. The materials are available in 50 mm tapes as standard, but can be supplied in any width to your choice.

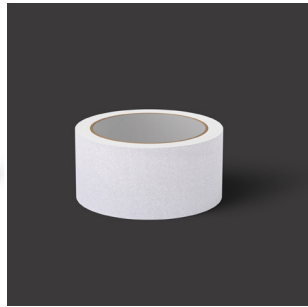
## S200 SIL - Standard Reflective Material

**Standards:** EN ISO 20471

**Colour:** Silver

**Backing:** Cotton 35% / Polyester 65%

**Washing durability:** HW 50 x 60°



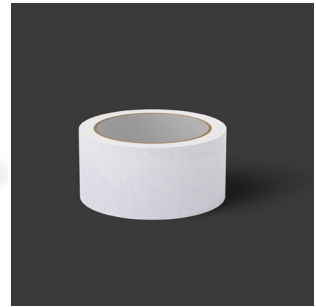
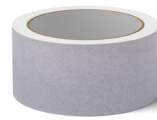
## S210 SIL - Elastic Reflective Material

**Standards:** EN ISO 20471

**Colour:** Silver

**Backing:** Elastane 20% / Polyamid 80%

**Washing durability:** HW 50 x 60°



## S400 SIL - Industrial Washing Ref. Material

**Standards:** EN ISO 20471

**Colour:** Silver

**Backing:** Polyester 100%

**Washing durability:** IW 50 x 75° (ISO 15797)



## S500 SIL - Flame Retardant Ref. Material

**Standards:** EN ISO 20471 | EN 469 | EN ISO 11612

**Colour:** Silver

**Backing:** Cotton F.R. Fabric 100%

**Washing durability:** HW 50 x 60°



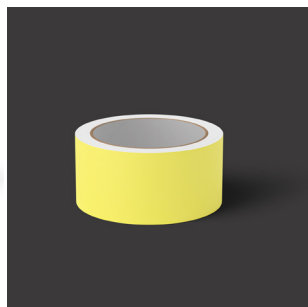
## S530 FYL - Flame Retardant Fluo. Yellow

**Standards:** EN 469 | EN ISO 11612

**Colour:** Fluo. Yellow

**Backing:** Cotton F.R. Fabric 100%

**Brightness:** 20-30 cd/(lux.m²)



## S530 FRD - Flame Retardant Fluo. Red

**Standards:** EN 469 | EN ISO 11612

**Colour:** Fluo. Red

**Backing:** Cotton F.R. Fabric 100%

**Brightness:** 20-30 cd/(lux.m²)





# Heat Transfer Reflective Materials

Our range of reflective heat transfer films features excellent reflective performance and bonding properties whatever the condition. The materials are available in 50mm tapes as standard, but can be supplied in any width or made into a logo to your choice.

## T200 SIL - Standard Reflective Material

**Standards:** EN ISO 20471

**Colour:** Silver

**Backing:** Polyurethane

**Washing durability:** HW 35 x 60°



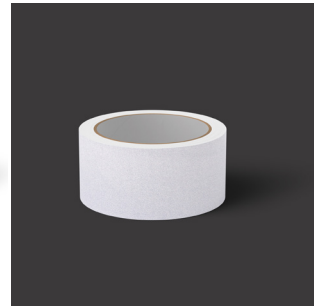
## T400 SIL - Industrial Washing Ref. Material

**Standards:** EN ISO 20471

**Colour:** Silver

**Backing:** Polyurethane

**Washing durability:** IW 30 x 75° (ISO 15797)



## T500 SIL - Flame Retardant Ref. Material

**Standards:** EN ISO 20471 | EN 469 | EN ISO 11612

**Colour:** Silver

**Backing:** Polyurethane

**Washing durability:** HW 35 x 60°



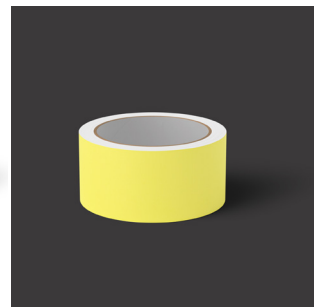
## T530 FYL - Flame Retardant Fluo. Yellow

**Standards:** EN 469 | EN ISO 11612

**Colour:** Fluo. Yellow

**Backing:** Polyurethane

**Brightness:** 20-30 cd/(lux.m<sup>2</sup>)



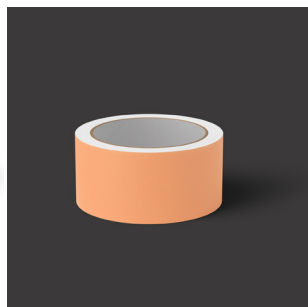
## T530 FRD - Flame Retardant Fluo. Red

**Standards:** EN 469 | EN ISO 11612

**Colour:** Fluo. Red

**Backing:** Polyurethane

**Brightness:** 20-30 cd/(lux.m<sup>2</sup>)

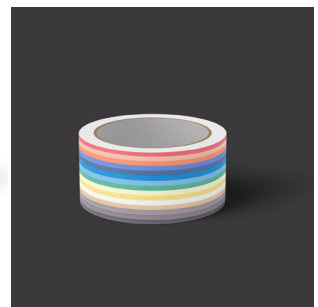
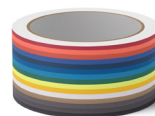


## T900 Series - Ref. Colours - True Colour

**Colour:** Yellow (YEL), Orange (ONG), Red (RED), Green (GRN), Black (BLK), White (WHI), Sky Blue (SBL), Royal Blue (RBL), Blue (BLU), Navy Blue (NBL), Fluo. Yellow (FYL), Fluo. Red (FRD), Gold (GLD), Dark Grey (DGR), Charcoal Grey (CGR)

**Backing:** Polyurethane

**Brightness:** 20-30 cd/(lux.m<sup>2</sup>)



Heat-Transfer products also available with Pressure Sensitive Adhesive Liner



# Reflective Materials for Print and Logos

If logos and garment decoration is your game, then our graphic reflective materials are the right choice for your company. With these materials, logos with colours and details that will reflect at night can be produced, thereby offering 24 hour logo recognition.

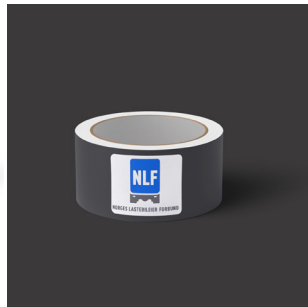
## P200 SIL - Graphic Ready Transfer Film

**Standards:** EN ISO 20471

**Colour:** Silver

**Application:** Screen Print Ink, Cut and then Heat Transfer

**Remark:** Printable version of T200 SIL



## P910 CLR - Clear Reflective Graphic Film

**Colour:** Clear

**Brightness:** 50-70 cd/(lux.m<sup>2</sup>)

**Application:** Screen Print Inks, Adhesive and then Heat Transfer



## P920 SIL - Silver Reflective Graphic Film

**Colour:** Silver

**Brightness:** 350 cd/(lux.m<sup>2</sup>)

**Application:** Screen Print Adhesive and then Heat Transfer



# Laminated Reflective Materials

Lamination of tapes is an ideal process when the objective is to obtain nonstandard designs and widths. The material does not alter its performance and the certification status of the material remains unchanged. The lamination process allows for many different combinations of materials and widths tailored to the need of the customer.

## S500 SIL Laminated with T530 FYL LC

**Standards:** EN ISO 20471 / EN 469 / EN ISO 11612

**Colour:** Silver / Fluo. Yellow / Silver

**Backing:** Cotton F.R. Fabric 100%

**Remark:** T530 FYL LC is converted using Laser Cut



## S530 FRD Laminated with T500 SIL LC

**Standards:** EN ISO 20471 / EN 469 / EN ISO 11612

**Colour:** Fluo. Red / Silver / Fluo. Red

**Backing:** Cotton F.R. Fabric 100%

**Remark:** T500 SIL LC is converted using Laser Cut





# Converted Reflective Tapes with Print, Cut or Engrave

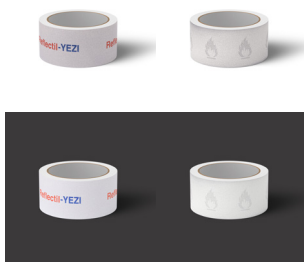
We can supply fully EN ISO 20471 compliant reflective materials with the design you like. The design can be printed in one or two colours, engraved with great details, or cut to formats and patterns you need. We also supply ready-made multicoloured reflective logos or logos made to a high detail level.



## EN ISO 20471 - Chess pattern ref. material

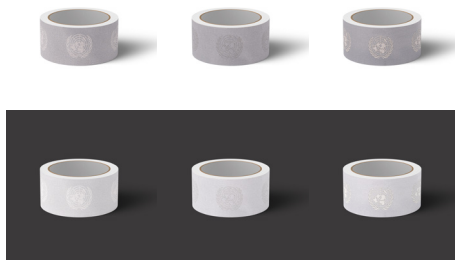
Chess pattern reflective material is available in standard patterns.

Depending on needs and usage areas, the reflective material can be EN ISO 20471 certified (fx. green chess pattern) or EN 469 and/or EN ISO 11612 certified (fx. red chess pattern). There are two standard patterns for 50 mm wide reflective bands (either two squares high or four squares high). Get in contact to find the best solution for your needs.



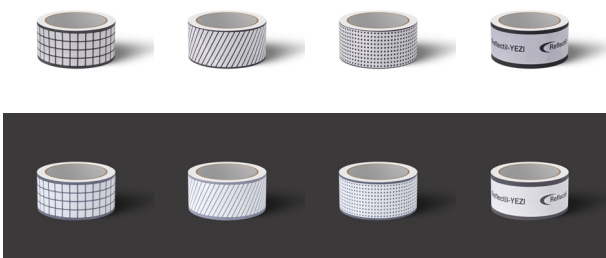
## EN ISO 20471 - Printed Designs ref. material

We print logos and patterns onto reflective materials. Up to two colours can be used at the same time. Reflective bands with print are possible to certify EN ISO 20471. The only thing we need is a vectorized file (EPS or PDF) with the logo, pattern or text you have in mind. Get in contact and share your ideas!



## EN ISO 20471 - Ref. material with laser eng.

Using laser technique, patterns can be engraved with an extreme level of detail - still keeping to the specifications of the EN ISO 20471 certificate. The only thing needed is a vectorized file (EPS or PDF) with the logo, pattern or text that you have in mind. Very nice effects can be created through laser engraving the reflective materials!



## EN ISO 20471 - Cut Reflective materials

Reflective material can be cut into different patterns, to give nice visual effects and/or improved functionality (fx. better stretch abilities). Reflecti-YEZI has developed a set of standard patterns, but it is also possible to design your own pattern. Let us know what you would like!



# Reflective Logos

Reflectil supplies reflective logos in different types of materials with exciting effects to suit most needs. The logos can be made using different techniques and raw materials. Contact us for more information's or a price quote!



## Reflective Print Techniques

Properties/Print technique	Plotter Cut	Laser Cut	Laser Engrave & Cut	Digital Reflective	Screen Reflective	Screen Colors	Screen Silver
Process & Materials	"Knife" cutting on "T" type materials	Laser cutting on "T" type materials	Laser engrave and cut on "S" type materials or P200SIL	"Knife" cutting and Print on P200SIL	Screen Print on "S" type materials or P200SIL	Screen Print on P910CLR	Screen Print glue on P920SIL
Small Quantities	★★★	★★★	★★	★★★	★	★	★
Quick Delivery	★★★	★★★	★★	★★★	★	★	★
Washability	★★★	★★★	★★	★★	★★	★★	★★
Colour Matching	■	■	■	★	★	★★	★
Application	★★★	★★★	★★★	★★★	★★	★★	★★
Colour Migration	★★★	★★★	★★★	★★★	★★★	★★	★★
Complex design cut	★	★★	★	★	■	■	■
Complex design print	■	■	■	★★★	★★	★★	★★

★★★ Very suitable   ■ Not applicable





**815**

**Reflective Harness - 50mm Elastic Band with 15mm Reflective Stripe**

**Colours:** Fluorescent Yellow or Black

**Sizes:** One Size - Approx. 55x65cm

The Reflective harness has become an increased popular product in the Nordic market this year. Apart from its perceived safety it is perhaps its ease of use and compact size that is the reason for its popularity. As the product is designed to make the user visible during night-time, and protect the wearers health and safety, the product is a Personal Protective Equipment and CE marked under the PPE regulation CE 425/16 to EN 13356.



# Standards and Documentation

## - Lightweight High Visibility Garments

Visibility products are personal protective equipment (PPE) worn by persons to protect against health and safety hazards. Visibility products marketed in the EU must be CE marked and certified. The following is a quick guideline and a checklist on how you can make sure that a product is correctly certified.

### Lightweight High Visibility Garments for Professional use

High visibility garments provide protection by making the user visible, e.g. in traffic situations. In a professional setting, the employer must conduct a risk assessment at the work place and equip the worker with a suitable product solution. The EN ISO 20471 is the product standard for high risk situations. The standard divides CE marked garments into three classes.

**EN ISO 20471 Class 1.** Provides the lowest level of visibility. May provide sufficient protection where the risk level is low. Since the background colour requirement in this class allows for the use of many alternative colours in addition to the fluorescent colours, these garments are also used for other purposes than visibility, e.g. to distinguish between different functions or roles.

**EN ISO 20471 Class 2.** Provides considerably better protection than class 1. Most often, this level of visibility provides sufficient protection for most usage areas. Examples are construction sites, car parks, airports, harbours, loading bays and railroads.

**EN ISO 20471 Class 3.** Provides the highest level of safety and is therefore suitable in high risk situations. Mostly used near dense traffic at high speed.

In addition, high visibility garments may incorporate additional safety features. For these purposes, other standards may also be used. As an example, a high visibility garment can be certified to ISO 14116, the standard for limited flame spread.

### Lightweight High Visibility Garments for Sport/Leisure

For reflective vests used in non-professional situations, a separate standard is applicable.

**EN 1150.** The garments in this standard do not provide the same level of visibility as EN ISO 20471 class 2 and 3. The norm does not divide products into classes. The products are instead chosen based on the height of the user.

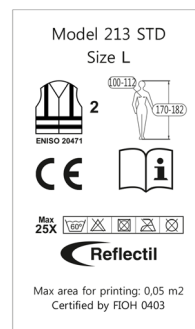
### Reflective Accessories

Reflective accessories are intended to make the user visible by vehicle headlights at night.

**EN 13356.** The standard establishes performance levels as well as minimum area requirements for different types of reflective accessories (e.g. hanging reflectors, stickers and Slap-Wraps). The standard does not apply to garments.

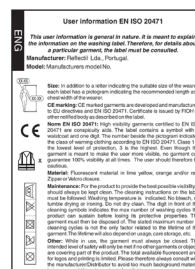
### How can you ensure that a product is CE marked?

By following the steps below, you can make sure that a product has been certified and correctly documented according to one of the existing product norms for visibility.



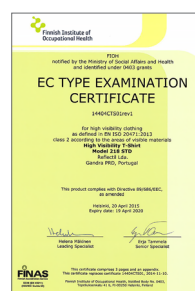
#### 1. The product must carry a visible care label with the following information:

- Name of manufacturer
- Article No
- CE mark
- Norm and relevant pictogram
- Recommended washing cycles



#### 2. A user information sheet must accompany the product:

- Name of manufacturer
- Explanations for the pictograms depicted on the care label
- Limitations of use
- All information must be in the local language of use



#### 3. The supplier must be able to present an EC type examination certificate with the name of the manufacturer and the correct product reference.



## Pictogram for Visibility Garments

All CE marked garments must be labeled with a pictogram indicating the relevant hazard and PPE standard. The norm is indicated under the graphical symbol in text.

In EN ISO 20471 the number next to the graphical symbol indicates the garment class (e.g. class 2). For more information on standards, markings and reflective materials visit [www.reflectil.com](http://www.reflectil.com). Please contact us for any additional information.



## ***To make people visible - that's our business***

Reflectil is an international group of companies developing, manufacturing and marketing visibility products for personal use. Our main product areas are:

- ***Lightweight high visibility garments for professional and non-professional*** are mainly distributed through work wear distributors, distributors of personal protective equipment, distributors of promotional articles, sports retailers as well as through work wear manufacturers.
- ***Reflective materials*** used primarily in the garment making industry, but also on ready-made garments for decoration purposes, corporate identity needs and for added safety.

Production takes place both at our factory in Portugal and through our partners in China. We have many models in stock to serve customers all over Europe.

We certify all our garments and accessories in our own name, using independent well-known accredited test institutes. We will send you the certificate for each and single product.

Product updates are done continuously. Please, consult our web site for the latest details.

**[www.reflectil.com](http://www.reflectil.com)**

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