

# **COMFORT ZONE** PLALINE HIGH-VISIBILITY **PROTECTION**

The basic idea behind our Plaline high-visibility collection: "Maximum visibility with maximum wearing comfort." Based on this, we have developed our range for you. The result can be seen and felt in the truest sense of the word.

High-visibility requirements according to EN ISO 20471 for workwear that ensures optimal visibility? Done! Additional feelgood factor? Already integrated! And, last but not least, the range scores top marks with modern tailoring for a casual look. Thanks to 25 per cent cotton content Practical equipment features Numerous pockets for sufficient storage space Well-thought-out details For example, a knee pad can be inserted into the attached knee Best visibility and perfect combination options The dungarees with fluorescent reflective stripes can be perfectly combined with the blouson and the softshell jacket from the **XPLANAM** 





|                      | BLOUSON, TROUSERS AND DUNGAREES   | SOFTSHELL JACKET   |  |
|----------------------|---|--|--|
| MATERIAL             | Main colour 75 % polyester 25 % cotton (approx. 290 g/m²) Contrasting colour 65 % polyester 35 % cotton (approx. 280 g/m²) canvas weave | Outer material  100 % polyester  Softshell (approx. 320 g/m²)  Inner lining  100 % polyester  Fleece |  |
| DESIGN               | Reflective material silver  | Reflective material silver   |  |
| COLOURS              | orange/zinc, yellow/zinc  | orange/slate, yellow/slate   |  |
| CLOTHING<br>SIZES    | Normal sizes $42-44-46-48-50-52-54$ $56-58-60-62-64$ Slim sizes $90-94-98-102-106-110$ Short sizes $24-25-26-27-28-29$                  | International sizes $S-M-L-XL-XXL-XXXL-4XL-5XL-6XL-7XL-8XL$  |  |
| CARE<br>INSTRUCTIONS | max. 50 washes  | max. 25 washes   |  |
| KNEE                 | certified knee protection in conjunction with a PLANAM knee pad (article number 9901027) for trousers and dungarees                     |  |  |





**PROTECTION** 

# **Blouson**









360°) View this item in all available colours under "Products" at planam.de

# **APPLICATIONS**















Even small tools are quick and easy to hand in the sleeve pocket



The closable chest pocket on the left provides even more storage



The ventilation at the back ensures your body remains a consistent temperature

# **EXTRAS**

- + 2 side patch pockets with flaps and press studs
- + 1 chest pocket on the left with flap and Velcro closure
- + double chest pocket on the right
- + mobile phone pocket on the right
- + 2 pen loops
- + adjustable cuffs with press studs
- + concealed front zip
- + stand-up collar
- + adjustable waistband with Velcro
- + sleeve pocket on the left
- + 2 golf pleats on the back
- + ventilation slit in the back

# **CLOTHING SIZES**

# Normal sizes

42 - 44 - 46 - 48 - 50 - 52 - 54 - 56 - 58 - 60 - 62 - 64

# Slim sizes

90 - 94 - 98 - 102 - 106 - 110

# Short sizes

24 - 25 - 26 - 27 - 28 - 29

# **CERTIFICATES AND STANDARDS**











5600 orange/zinc

yellow/zinc



# **Trousers**





# **APPLICATIONS**















The **higher waistband with elastic** Work tools are easy to reach thanks ensures the perfect fit, no matter what you are doing



to the ruler pocket



Even more storage space thanks to the thigh pocket

# **EXTRAS**

- + 2 pouch pockets
- + 2 patch knee pockets
- + double ruler pocket on the right
- + thigh pocket with flap and Velcro closure on the left
- + mobile phone pocket on the left
- + elastic waistband
- + 2 back pockets with flaps and Velcro closure
- + zip fly
- + hammer loop

# **CLOTHING SIZES**

# Normal sizes

42 - 44 - 46 - 48 - 50 - 52 - 54 - 56 - 58 - 60 - 62 - 64

# Slim sizes

90 - 94 - 98 - 102 - 106 - 110

# Short sizes

24 - 25 - 26 - 27 - 28 - 29

# **CERTIFICATES AND STANDARDS**









Type 2, Performance class 1





5610 orange/zinc

5611

**≍?LANAM** 

# **Dungarees**







360°) View this item in all available colours under "Products" at planam.de

# **APPLICATIONS**















Don't lose anything in the **pocket** with coin pocket



Knee protection can be inserted into the patch knee pocket



No searching for tools thanks to the bib pocket

# **EXTRAS**

- + 2 pouch pockets
- + 2 patch knee pockets
- + double ruler pocket on the right
- + thigh pocket with flap and Velcro closure on the left
- + mobile phone pocket on the left
- + bib pocket with flap and Velcro closure
- + further bib pocket with zip
- + 2 pen loops

- + elastic waistband
- + 2 back pockets with flaps and Velcro closure
- + adjustable waistband with jeans button
- + high back with elastic braces
- + braces with elastic insert
- + clip buckles on the braces.
- + hammer loop

## Normal sizes

42 - 44 - 46 - 48 - 50 - 52 - 54 - 56 - 58 - 60 - 62 - 64

# Slim sizes

90 - 94 - 98 - 102 - 106 - 110

# Short sizes

24 - 25 - 26 - 27 - 28 - 29

## **CLOTHING SIZES**

# **CERTIFICATES AND STANDARDS**









Certified as reinforced knees in conjunction with PLANAM knee pads (article number 9901027)

EN 14404:2010 Type 2, Performance class 1





5620

yellow/zinc



# **Softshell Jacket**











# **APPLICATIONS**





















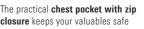
windproof

stretch











The **fleece** inside makes the jacket comfortable to wear

# **EXTRAS**

+ windproof

the adjustable cuffs

- + 2 side pockets
- + 1 chest pocket on the right with zip
- + reflective piping
- + adjustable cuffs
- + concealed front zip
- + soft fleece lining

# **CLOTHING SIZES**

# International sizes

S-M-L-XL-XXL-XXXL-4XL-5XL-6XL-7XL-8XL

# **CERTIFICATES AND STANDARDS**











5660 orange/slate

5661 yellow/slate



# STANDARDS & CERTIFICATION



# DIN EN 14404 KNEE PROTECTION FOR WORKERS KNEELING DOWN

Working in a kneeling position creates constant pressure on the knee. Knee protection is designed to distribute the forces produced evenly across it. In addition to this, it is designed to prevent injuries or damage caused by hard surfaces, small stones or similar objects lying on the ground.

## Knee protection is subdivided into 4 types:

Type 1: Knee protection that is separate from clothing and fastened to the leg.

Type 2: Pads inserted into pockets on trouser legs or permanently attached to the

traucare

Type 3: Equipment that is not attached to the

body.

Type 4: Knee protection forming part of a unit

with additional functions.

# In addition to this, there are three performance classifications:

Level 0: No protection against punctures.

Level 1: The knee protection is suitable for even ground where there is no risk of objects

over 1 cm in height.

Level 2: The knee protection is for use in chal-

lenging conditions, such as for example when kneeling on stones in mines or

quarries.

The PLANAM knee pad product no. 9901027 is certified as Type 2, Level 1/ Level 0 knee protection. This certification only applies in conjunction with PLANAM trousers, dungarees or overalls and cannot be transferred to other products.



## THE OEKO-TEX® STANDARD 100

The OEKO-TEX® Standard 100 is an independent testing and certification system for raw, intermediate and end products for textiles from all stages of processing. Examples of certifiable articles are raw and dyed/refined yarns, raw and dyed/refined woven and knitted fabrics, ready-made articles (garments of all types, home textiles, bedding, terry towelling, toys made of textiles and many others).

## Tests for harmful substances cover:

- + substances banned by law
- + substances regulated by law
- + chemicals that are known to be potentially harmful to health (but are not yet regulated by law)
- + healthcare parameters in their entirety, the requirements go well beyond existing national legislation.

# Why OEKO-TEX®?

The OEKO-TEX® Standard 100 was developed in the early 1990s as a response to the need of consumers and the general public for textiles that do not pose a risk to health. Negative headlines such as "Poisons in textiles" were widespread at the time, labelling all chemicals used in the production of textiles as negative and harmful to health.

Yet the demands made of modern textile products cannot be met without using certain chemical substances. Fashionable colours, easy care, long life and many other functional properties are demanded of textiles today and are, to some extent, and depending on their intended use (e.g. for professional and protective clothing), quite indispensable.



# UV PROTECTIVE CLOTHING WITH INTEGRATED SUN PROTECTION

The largest organ of the human body is the skin, and it is exposed to great danger in summer. UV rays from the sun can increase the risk of skin cancer. Standard textiles are radiolucent, providing insufficient protection.

PLANAM's UV-protective clothing gives guaranteed certified safety. Awarded UV protection certificates "PROTECT 80" and "PROTECT 40", this range guarantees maximum prevention. Just like for sunscreens, the figure indicates the protection factor for spending longer in the sun safely. Our PLANAM models allow the wearer to remain in the sun 80 or 40 times longer than those without protection. With their integrated sun protection factor, the finished garments provide the skin with optimum protection. Those with sensitive skin can stay in the sun longer without having to cover themselves in sunscreen. It is important to know the individual skin type in order to determine the individual's protection time (length of possible exposure to the sun without risk of skin damage). The UV protection factor specified (e. g. Protect 80) gives the factor by which the individual's protection time can be extended just by wearing these textiles.

# DIN EN ISO 20471 HIGH-VISIBILITY CLOTHING

Darkness and poor visibility are big risk factors when working outside. In particular, dangerous situations in road traffic, such as at roadworks, are frequently underestimated. And around railway tracks, at airports and around ports, good visibility is a top priority.

# **DEFINITION OF LEVELS OF RISK**

Standard DIN EN ISO 20471 does not differentiate between professional and non-professional use. It is concerned generally with all hazardous situations where there is a danger of not being seen and exclusively with warning clothing for high risk scenarios. The clothing is subdivided into classes 1, 2 and 3.

## DESIGN

Emphasis is placed on the visibility of people. Fluorescent material and horizontal reflective strips are used to make the torso visible and, where applicable, trouser legs and sleeves visible too. Class 3 products must make the torso visible and, if not both, either have sleeves with reflective strips or long trouser legs with reflective strips.

### Minimum area of visible material

| Material                          | Class 1             | Class 2             | Class 3             |
|-----------------------------------|---------------------|---------------------|---------------------|
| Background material               | 0.14 m <sup>2</sup> | 0.50 m <sup>2</sup> | 0.80 m <sup>2</sup> |
| Retroreflective material          | 0.10 m <sup>2</sup> | 0.13 m <sup>2</sup> | 0.20 m <sup>2</sup> |
| Material with combined properties | 0.20 m <sup>2</sup> | n. a.               | n. a.               |

The clothing class is based on the smallest area of visible material

Therefore warning vests or warning dungarees may not be certified individually for class 3. Clear combinations of horizontal and vertical retroreflective stripes offer the best visual contrast against most backgrounds. Excessive diagonal features and unclear shapes must be avoided. Combinations of clothing, for example a high-visibility jacket with high-visibility trousers, can be certified by DIN EN ISO 20471.



# PICTOGRAM:

Labelling is with the pictogram and the class 1, 2 or 3.

The clothing's instructions for use must also state that the service life of the product is not solely dependent on the number of cleaning cycles, but also on use, care and storage.

## REFLECTIVE BAND

The Reflective Material has been designed for use on high-visibility clothing, workwear and professional clothing to improve the visibility of the wearer when it is dark or visibility is poor. The material shines a brilliant white when illuminated by vehicle headlights, even if the wearer is at the edge of the road. Reflective Material is composed of exposed retroreflective lenses bonded to a durable blended fabric (65% polyester / 35% cotton). It far exceeds the minimum retroreflective performance required by the highest category (class 3). Its retroreflective properties are not dependent on the direction the clothing is facing.





# MEN'S

|                     | <b>.</b>                     | <del>.</del> |
|---------------------|------------------------------|--------------|
| Blouson             | orange/zinc<br>yellow/zinc   | 5600<br>5601 |
| Trousers            | orange/zinc<br>yellow/zinc   | 5610<br>5611 |
| Dungarees           | orange/zinc<br>yellow/zinc   | 5620<br>5621 |
| Softshell<br>Jacket | orange/slate<br>yellow/slate | 5660<br>5661 |

You can view interactive images of products from the Plaline High Visibility Clothing rang here:







