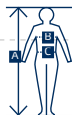


- Damage to the clothing (e.g., holes or tears) will diminish the protection the garment provides.
- Regular checks on damage or ageing of the clothing and if necessary repairing or replacing the garments will make sure your protection is maintained.
- In case repairs or alterations (e.g. adding badges) are needed, these need to be done by trained persons and only with original materials foreseen by the manufacturer and taking into account the design limitations of the applied standards.
- This garment is suitable for wearing during an entire working day in a cold working environment and contains no toxic, carcinogenic, mutagenic, or other substances that can affect the health or hygiene of the user adversely. No allergic reactions due to skin contact with this garment are known.
- The garments can be recycled through the appropriate channels in your country.

Ultimately, the wearer of the garments is responsible for his own safety.

### Size indication

All sizes indicated in this pictogram are measured on the wearer and different from the garment's measurements.



A = Total height (cm)  
B = Chest (cm)  
C = Waist (cm)

### Reference

ScanPolar HV is the general reference for the Scandia clothing produced according to the described standards. You will also find a specific product reference on the label.

### Care and maintenance instructions

- Use and the degree of soiling should determine washing and cleaning frequency.
- To avoid damaging the garment, it is recommended that the wearer close the garment's fastenings and turn the garment inside out before washing.
- Machine washing should involve limited mechanical action to avoid damaging any of the garment's reflective material.
- Rinse the garment thoroughly after washing to remove all laundry detergent residue. Do not use fabric softeners.
- Remove stains quickly and wash soiled garments immediately. If necessary, use perchlorine-ethylene to clean heavily soiled garments.
- Contact Scandia for information about washing garments in industrial laundry facilities.

	Maximum washing temperature: 40°C (105°F) Maximum amount of cleaning cycles for reflective tape: 25 <b>Note:</b> washing at lower temperatures will improve the service life of garments. A garment's service life is also determined by the type and the amount of detergent used.
	Do not use bleach or other chlorine-based agents.
	Do not tumble dry.
	Do not iron.
	Do not dry clean.

### Disclaimer

Scandia Gear is not liable for damages that result from improper use of these products.

### Garment certification:

Centexbel, Technologiepark 70, B-9052 Zwijnaarde (identification number: N.B. 0493).

Made with 100% recycled paper

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# SCANPOLAR HV

High visibility, waterproof winter clothing



## User's Instruction

www.scandiagear.com

ROTTERDAM SINGAPORE HOUSTON DUBAI

SINCE 1974  
MARITIME OUTFITTERS

Scandia®

# SCANPOLAR HV

## High visibility, waterproof winter clothing

The garment referred to in this user instruction, complies with the essential requirements of the European Directive 89/686/EEC and / or EU Regulation 2016/425 concerning Personal Protective Equipment (PPE). The harmonized standards EN ISO 13688 (2013), EN 342 (2017), EN 343 (2019) and EN ISO 20471 (2013+A1:2016) were being used for certification of this garment.

## Reference

Winter jacket : ScanPolar HV 001

Winter trousers: ScanPolar HV 002

The EU Declaration of Conformity (DOC) can be found at the Scandia Gear website ([www.scandiegear.com](http://www.scandiegear.com)), under the Scandia product name ScanPolar HV 001 or ScanPolar HV 002 through the link "Declaration of Conformity".

Read this information carefully before first wear and keep it for future reference.

## Application

The clothing is designed to protect against cold, rain and wet weather conditions and decreased visibility under any light conditions.



EN 342  
:2017

I<sub>cler</sub>  
0,355 (B)  
2  
WP

### EN342:2017 - protective clothing: protection against cold

**I<sub>cler</sub>** : Insulation value (in M2.K/W) of the single garment or ensemble with standard reference clothing. See table below for wearing times. **2**:

Classification of the air permeability, see table below.

**WP**: Indication of resistance to water penetration

Resultant effective thermal insulation of clothing (I<sub>cler</sub>) and ambient temperature conditions (in °Celsius) for heat balance at different activity levels and durations of exposure.

Insulation I <sub>cler</sub> (m <sup>2</sup> .K/W)	Wearer's moving activity							
	Light 115 W/m <sup>2</sup>				Medium 170 W/m <sup>2</sup>			
	0,4 m/s		3 m/s		0,4 m/s		3 m/s	
	8 h	1 h	8 h	1 h	8 h	1 h	8 h	1 h
0,265	3	-12	9	-3	-12	-28	-2	-16
0,310	-2	-18	6	-8	-18	-36	-7	-22
0,390	-9	-28	0	-16	-29	-49	-16	-33
0,470	-17	-38	-6	-24	-40	-60	-24	-43
0,540	-24	-45	-11	-30	-49	-71	-32	-52
0,620	-31	-55	-17	-38	-60	-84	-40	-61

Note: these temperature values are only valid with even distribution of the insulation on the body and with adequate hand-, foot- and headwear and an air velocity between 0,3 m/s and 0,5 m/s. Higher wind speeds will increase the temperatures listed because of wind chill effects.

Standard underwear B for ensembles consists of:

- Undershirt with long sleeves
- Long underpants
- Socks (up to the knee)
- Bootees
- Thermojacket
- Thermopants
- Knitted gloves
- Balaclava

Note: The thermal insulation value was obtained by testing a ScanPolar Jacket and Trousers combination.

## Air permeability classes:

AP (mm/s)	Class
100< AP	1
5<AP ≤ 100	2
AP ≤ 5	3

**Warning:** thermal insulation may decrease after garment washing and cleaning.



EN 343  
:2019

### EN343:2019 - protective clothing: protection against rain 3:

protection level for water penetration of fabric and seams (4 classes of which 4 is the best performance) **1**: protection level for water vapour resistance (4 classes - of which 1 is the lowest) **R**: Raintower test (optional) - X : means "not tested"

As the breathability of the garment is limited (class 1), it is recommended to limit the continuous wearing time. The table below can be used as a guideline:

Recommended maximum continuous wearing time for a complete suit consisting of jacket and trousers without thermal lining				
Temperature of working environment	Class 1 Ret above 40	Class 2 25 < Ret ≤ 40	Class 3 15 < Ret ≤ 25	Class 4 Ret ≤ 15
25 °C	60 min	105 min	180 min	No limit
20 °C	75 min	250 min	No limit	No limit
15 °C	100 min	No limit	No limit	No limit
10 °C	240 min	No limit	No limit	No limit
5 °C	No limit	No limit	No limit	No limit

Table valid for medium physiological strain M = 150 W/m<sup>2</sup>, standard man, at 50% relative humidity and wind speed of 0,5 m/s.



EN ISO 20471  
:2013+A1:2016

### EN ISO20471:2013+A1:2016 - high visibility warning clothing for professional use

This Standard specifies requirements for High Visibility garments capable of signaling the user's presence visually. This clothing provides conspicuity of the user in hazardous situations under any light conditions by day (fluorescent material) and under illumination by vehicle headlights in the dark (reflective material). The fluorescent fabric was washed 5 times prior to testing of the fluorescent properties.

Below pictogram on the garment indicates compliance with EN ISO 20471.

X: Classification of the applied surface of fluorescent and retro reflective material. Classes 1 to 3 (of which class 3 is the highest achievable class)

EN ISO 20471 classification of fluorescent and retroreflective surface (X):			
	Class 1	Class 2	Class 3
Fluorescent material	0,14 m <sup>2</sup>	0,50 m <sup>2</sup>	0,80 m <sup>2</sup>
Reflective tape	0,10 m <sup>2</sup>	0,13 m <sup>2</sup>	0,20 m <sup>2</sup>

Parka ScanPolar HV conforms to class 2. Trousers ScanPolar HV002 conforms to class 1. Wearing both parka and trousers together conforms to class 3

### Warning :

- The garments should not be covered with non-high visibility garments or accessories (e.g. logo's).
- As a result of wearing and washing, the fluorescent fabric might fade in time. In case of doubt about performance, please consult your safety officer for further guidance and/or replace the garment.

## Correct product use

Even if you wear good quality protective clothing, you still have to take into account that your safety cannot be guaranteed under all circumstances. Be aware of:

- Only a complete suit, whose components provide the same level of protection, will ensure the wearer's safety, suit is defined as a overall or the combination of either jacket and trousers or a bib and braces.
- The garments (e.g., jacket) can be sold separately.
- The garment must be worn closed at all times.
- Use the adjustments at the wrists, ankles, and waist where provided.
- This garment does not offer protection for the head, hands, and feet. Make sure you use the adequate PPE for these parts of your body.
- Soiling will change the characteristics of the fabrics used in the garment. Regular and thorough cleaning guarantees the efficiency of the garments (see care instructions).