

# POLAR



## IDEAL FOR

- Workers who require a good thermal insulation to perform static or low intensity work activities in cold environments (indoor or outdoor).
- The excellent thermal insulation from PrimaLoft® fabric, helps to keep the worker's body temperature.
- Some designs incorporate two 3M Scotchlite™ retro-reflective stripes.

## CERTIFICATIONS



COLD ENVIRONMENTS  
ONLY APPLIES TO FLEECE FABRIC

COLD PROTECTION IN COLD ENVIRONMENTS			
Part of the fabric that applies	Property	Standard	Performance values
Primaloft® fleece	Thermal Resistance/ Insulation (Rct)	EN ISO 11092:2014	Class 1
	Air permeability (AP)	EN ISO 9237:1995	Class 1

\*Class 1 of Rct and AP according to the classification requirements of EN 14058:2017:

Rct (m²K/W)	Class	Class	Air permeability (mm/s)
0,06 ≤ Rct < 0,12	1	1	AP > 100
0,12 ≤ Rct < 0,18	2	2	5 < AP ≤ 100
0,18 ≤ Rct < 0,25	3	3	AP ≤ 5
0,25 ≤ Rct	4		

The PrimaLoft® fleece part of the garment is specially designed and indicated to protect its wearer against the cold in environments that are not excessively cold and that are characterised by a possible combination of damp and wind at temperatures of -5° C or more.



COOL ENVIRONMENTS  
ONLY APPLIES TO KNITTED FABRIC

COLD PROTECTION IN COOL ENVIRONMENTS			
Part of the fabric that applies	Property	Standard	Performance values
Knitted fabric	Thermal Resistance/ Insulation (Rct)	EN ISO 11092:2014	Results between 0.01 – 0.02 m²K/W
	Air permeability (AP)	EN ISO 9237:1995	Results between 300 – 400 mm/s

The knitted fabric part of the garment is specially designed and indicated for the protection of users against minimal risks from the cold in cool environments, characterized by the possible combination of damp and wind at a temperature equal to or higher than 5 °C and up to 10 °C.



VISIBILITY

### Protective properties against minimal risks due to low visibility.

This garment alone does not protect against this risk, as it does not reach a minimum surface for the user to be seen, but it helps increase visibility as long as the user also wears suitable protective clothing against this risk.

## KEY FEATURES



## DIMENSIONS



## FABRICS



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PrimaLoft® Bio™ brings a new approach to sustainability without compromising its industry-leading performance and comfort throughout the life cycle of the garment. This innovation lies within the makeup of the fibers, which led to the creation of the world's first 100% recycled synthetic insulation and fabric designed to return to nature. A revolutionary breakthrough that offers a previously unattainable level of performance and sustainability, drastically reducing the amount of micro plastics in our landfills and oceans.

### Colours with PrimaLoft® Bio™ fleece:

Solid Black, Solid Navy, R-Black, Vertical Navy, Galvanic Multi, Tools Orange Fluor, Plates Yellow Fluor, Bolt Steel Grey

## PACKAGING



## FABRICS COMPOSITION

97% Recycled Polyester.  
3% Elastane.

## WASHING MAINTENANCE SYMBOLS



**Mass per unit area:** 172 g/m<sup>2</sup> ± 5 %  
EN 12127:1997

**Air Permeability:** 1100 mm/s ± 10 %  
EN ISO 9237:1995

**Thermal Resistance (RCT):** 0,0836 m<sup>2</sup>K/W ± 10 %  
EN ISO 11092:2014

**Water Vapour Resistance (RET):** 7,30 m<sup>2</sup>Pa/W ± 10 %  
EN ISO 11092:2014

**Determination of breaking Strength and elongation:**

EN ISO 13934-1:2013

AVERAGE LOAD		AVERAGE ELONGATION	
LENGTHWISE	311 N ± 10 %	LENGTHWISE	68% ± 10 %
CROSSWISE	123 N ± 10 %	CROSSWISE	192% ± 10 %

**Bursting resistance (after 5 washes):** 110 kPa ± 10 %  
EN ISO 13938-1:1999

**Determination of dimensional change in domestic washing and drying:**

EN ISO 5077:2008

LENGTHWISE < ±3%

CROSSWISE < ±3%

Washing procedure 4N (Ta=40 ±3°C) according to ISO 6330:2012

**Resistance to pilling:** 3 - 4 2000 CYCLES  
ISO 12945-2:2020

Scale from 1 to 5 in which 1 is "Very severe pilling" and 5 is "No pilling".

**Determination of the abrasion resistance of fabrics:** >25000 CYCLES  
EN ISO 12947-2:2016 Testing pressure: 9 kPa Until the first yarn broken

**Fastness rates:**

Colour fastness to domestic and commercial laundering:  
EN ISO 105-C06:2010 4 - 5 \*

Colour fastness to perspiration (Alkaline & Acid):  
EN ISO 105-E04:2013

ALKALINE	4 - 5 *
ACID	4 - 5 *

Colour fastness to rubbing (Dry & Wet):  
EN ISO 105-X12:2016

DRY	4 - 5 *
WET	4 - 5 *

Colour fastness to sea water:  
EN ISO 105-E02:2013 4 - 5 \*

Colour fastness to artificial light:  
EN ISO 105-B02:2014 Método 2 5 - 6\*\*

\* Fastness rates in a scale from 1 to 5 in which 1 is "Poor behaviour" and 5 is "Good behaviour".

\*\* Fastness to artificial light rates in a scale from 1 to 8 in which 1 is "Very poor" and 8 is "Excelent"

<b>Mass per unit area:</b> EN 12127:1997	182 g/m <sup>2</sup>	± 5 %												
<b>Air permeability:</b> EN ISO 9237:1995	380 mm/s	± 10 %												
<b>Thermal Resistance (RCT):</b> EN ISO 11092:2014	0,013 m <sup>2</sup> K/W	± 10 %												
<b>Water Vapour Resistance (RET):</b> EN ISO 11092:2014	2,83 m <sup>2</sup> Pa/W	± 10 %												
<b>Determination of breaking Strength and elongation:</b> EN ISO 13934-1:2013	<table border="1"> <thead> <tr> <th colspan="2">AVERAGE LOAD</th> <th colspan="2">AVERAGE ELONGATION</th> </tr> </thead> <tbody> <tr> <td>LENGTHWISE</td> <td>210 N ± 10 %</td> <td>LENGTHWISE</td> <td>336% ± 10 %</td> </tr> <tr> <td>CROSSWISE</td> <td>230 N ± 10 %</td> <td>CROSSWISE</td> <td>239% ± 10 %</td> </tr> </tbody> </table>		AVERAGE LOAD		AVERAGE ELONGATION		LENGTHWISE	210 N ± 10 %	LENGTHWISE	336% ± 10 %	CROSSWISE	230 N ± 10 %	CROSSWISE	239% ± 10 %
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<b>Bursting resistance (after 5 washes):</b> EN ISO 13938-1:1999	122 kPa	± 10 %												
<b>Determination of dimensional change in domestic washing and drying:</b> EN ISO 5077:2008	LENGTHWISE < ±3%	CROSSWISE < ±3%												
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<b>Resistance to pilling:</b> ISO 12945-2:2001	2	2000 CYCLES												
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<b>Determination of the abrasion resistance of fabrics:</b> EN ISO 12947-2:2016	Testing pressure: 9 kPa	>90.000 CYCLES Until the first yarn broken												
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	** Fastness to artificial light rates in a scale from 1 to 8 in which 1 is "Very poor" and 8 is "Excellent"													
<b>Ultraviolet Protection:</b> AS/NZS 4399:2017	50+	Excellent protection												
<b>Retroreflective material (only applies to Scotchlite® retroreflective strap):</b> CIE 54.2	COMPLIES													

Tests used to determine **PROTECTIVE PROPERTIES AGAINST MINIMAL RISKS DUE TO LOW VISIBILITY** (only for Fluor and/or Reflective materials)