

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)
$0,06 \leq Rct < 0,12$	1	1	$AP > 100$
$0,12 \leq Rct < 0,18$	2	2	$5 < AP \leq 100$
$0,18 \leq Rct < 0,25$	3	3	$AP \leq 5$
$0,25 \leq Rct$	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 characterized 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

4-WAY
ULTRA STRETCH



97% RECYCLED
POLYESTER



MULTIFUNCTIONAL



MOISTURE
MANAGEMENT

3M Scotchlite™
Reflective Material
*some designs

REPREVE



FLEECE

DIMENSIONS**FABRICS COMPOSITION**

97% Recycled Polyester.
3% Elastane.



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

LEARN MORE

**PACKAGING****WASHING MAINTENANCE SYMBOLS**

Mass per unit area: EN 12127:1997		170 g/m ²	± 5 %	
Air Permeability EN ISO 9237:1995		1020 mm/s	± 10 %	
Thermal Resistance (RCT): EN ISO 11092:2014		0,09 m ² K/W	± 10 %	
Water Vapour Resistance (RET): EN ISO 11092:2014		7,3 m ² Pa/W	± 10 %	
Determination of breaking Strength and elongation: EN ISO 13934-1:2013				
		AVERAGE LOAD	AVERAGE ELONGATION	
		LENGTHWISE	280 N ± 10 %	
		CROSSWISE	85 N ± 10 %	
		LENGTHWISE	59% ± 10 %	
		CROSSWISE	178% ± 10 %	
Bursting resistance (after 5 washes): EN ISO 13938-1:1999		140 kPa	± 10 %	
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: ISO 12945-2:2001		3 - 4	2000 CYCLES	
Scale from 1 to 5 in which 1 is “Very severe pilling” and 5 is “No pilling”.				
Determination of the abrasion resistance of fabrics: EN ISO 12947-2:2016		>25000 CYCLES		
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**		
* Fastness rates in a scale from 1 to 5 in which 1 is “Poor behaviour” and 5 is “Good behaviour”.				
** Fastness to artifical light rates in a scale from 1 to 8 in which 1 is “Very poor” and 8 is “Excelent”				
Enhanced Visibility		CHROMACITY COORDINATES		LUMINANCE FACTOR
CIE 15	YELLOW FLUOR	x = 0,3834	y = 0,5617	β = 1,139
	ORANGE FLUOR	x = 0,6133	y = 0,3583	β = 0,528
Tests used to determine PROTECTIVE PROPERTIES AGAINST MINIMAL RISKS DUE TO LOW VISIBILITY (only for Fluor and/or Reflective materials)				

Mass per unit area: EN 12127:1997		170 g/m ²	± 7 %
Air permeability: EN ISO 9237:1995		250 mm/s	± 10 %
Thermal Resistance (RCT): EN ISO 11092:2014		0,014 m2K/W	± 10 %
Water Vapour Resistance (RET): EN ISO 11092:2014		2,55 m2Pa/W	± 10 %
Determination of breaking Strength and elongation: EN ISO 13934-1:2013			
		AVERAGE LOAD	
		AVERAGE ELONGATION	
LENGTHWISE		240 N ± 10 %	LENGTHWISE 160% ± 10 %
CROSSWISE		160 N ± 10 %	CROSSWISE 227% ± 10 %
Bursting resistance (after 5 washes): EN ISO 13938-1:1999		122 kPa	± 10 %
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: ISO 12945-2:2001		2	2000 CYCLES
Scale from 1 to 5 in which 1 is “Very severe pilling” and 5 is “No pilling”.			
Determination of the abrasion resistance of fabrics: EN ISO 12947-2:2016		>70.000 CICLOS	
Testing pressure: 9 kPa		Until the first yarn broken	
Fastness rates:			
Colour fastness to domestic and commercial laundering: EN ISO 105-C06:2010		4 *	
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 Method 2		6**	
* Fastness rates in a scale from 1 to 5 in which 1 is “Poor behaviour” and 5 is “Good behaviour”.			
** Fastness to artifical light rates in a scale from 1 to 8 in which 1 is “Very poor” and 8 is “Excellent”			
Enhanced Visibility		CHROMACITY COORDINATES	
		LUMINANCE FACTOR	
CIE 15	YELLOW FLUOR	x = 0,3853	y = 0,5411
	ORANGE FLUOR	x = 0,5901	y = 0,3647
Ultraviolet Protection: AS/NZS 4399:2017		50+ Excellent protection	
Retroreflective material (only applies to Scotchlite® retroreflective strap): CIE 54.2			COMPLIES

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