POLAR RECYCLED

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

CE CAT I
EN ISO 13688/13

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

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.

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

Rct (m^2K/W)	Class
0,06 ≤ Rct < 0,12	1
0,12 ≤ Rct < 0,18	2
0,18 ≤ Rct < 0,25	3
0,25 ≤ Rct	4

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

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 m^2K/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

ULTRA STRETCH
4-WAY ULTRA STRETCH

97% RECYCLED POLYESTER

MULTIFUNCTIONAL

MOISTURE MANAGEMENT

3M Scotchlite™ Reflective Material
*some designs

REPREVE

PRIMALOFT
FLEECE

DIMENSIONS

FABRICS COMPOSITION

97% Recycled Polyester.
3% Elastane.

PRIMALOFT®

PACKAGING

WASHING MAINTENANCE SYMBOLS

FABRIC TEST:
POLAR PRIMALOFT

BUFF SAFETY

Mass per unit area: EN 12127:1997	169 g/m^2	± 5 %
Air Permeability EN ISO 9237:1995	1013 mm/s	± 10 %
Thermal Resistance (RCT): EN ISO 11092:2014	0,0846 m^{2}K/W	± 10 %
Water Vapour Resistance (RET): EN ISO 11092:2014	7,61 m^{2}Pa/W	± 10 %

Determination of breaking Strength and elongation:
EN ISO 13934-1:2013

	AVERAGE LOAD		AVERAGE ELONGATION
LENGTHWISE	280 N ± 10 %	LENGTHWISE	71,5% ± 10 %
CROSSWISE	120 N ± 10 %	CROSSWISE	205% ± 10 %

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

Determination of dimensional change in domestic washing and drying:
EN ISO 5077:2008

LENGTHWISE < ±3% CROSSWISE < ±3%
Washing procedure 4N (Ta=40 ±3ºC) according to ISO 6330:2012

Resistance to pilling: ISO 12945-2:2001	4 - 5	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 Testing pressure: 9 kPa	>90000 CYCLES 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	4 - 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

CIE 15

	CHROMACITY COORDINATES		LUMINANCE FACTOR
YELLOW FLUOR	x = 0,3855	y = 0,5426	β = 0,7915
ORANGE FLUOR	x = 0,5872	y = 0,3648	β = 0,3393

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

FABRIC TEST:
ORIGINAL ECOSTRETCH

BUFF SAFETY

Mass per unit area: EN 12127:1997	182 g/m^2	± 5 %
Air permeability: EN ISO 9237:1995	380 mm/s	± 10 %
Thermal Resistance (RCT): EN ISO 11092:2014	0,013 m^{2}K/W	± 10 %
Water Vapour Resistance (RET): EN ISO 11092:2014	2,83 m^{2}Pa/W	± 10 %

Determination of breaking Strength and elongation:
EN ISO 13934-1:2013

	AVERAGE LOAD		AVERAGE ELONGATION
LENGTHWISE	210 N ± 10 %	LENGTHWISE	336% ± 10 %
CROSSWISE	230 N ± 10 %	CROSSWISE	239% ± 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 ±3ºC) 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 Testing pressure: 9 kPa	>90.000 CYCLES	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	β = 0,7597
	ORANGE FLUOR	x = 0,5901	y = 0,3647	β = 0,2939

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)