



# Bisley

## FLAME RESISTANT

PROTECT YOUR GREATEST ASSET. YOUR WORKERS.



**OUR MISSION: FIGHT FIRE WITH FIRE**

# Bisley

## FLAME RESISTANT

At Bisley, our job is to protect you and your workers, and we take that seriously! Our new Flame Resistant Workwear range is made from the world's most high-tech lightweight fabrics developed with TenCate, the world's leading flame-resistant (FR) fabric innovators. Along with Bisley's decades of industry experience, you and your workers are covered by vigorous quality control standards. Our Flame Resistant Workwear is tried and tested over time, to both European and US standards.

A photograph of an industrial facility, likely a refinery or chemical plant. In the background, there are large, cylindrical storage tanks and a complex network of pipes and structural steel. In the foreground, there are several large, light blue industrial containers or tanks. A sign with technical information is visible on the right side of the image. The sky is overcast and grey.

PROTECT YOUR GREATEST ASSET WITH  
AUSTRALIA'S LEADING WORKWEAR BRAND.



# INTRODUCING A TRUE SOLUTION TO HEAT STRESS

We're not just serious about safety,  
we're also serious about innovation  
and service.

Introducing industrial-sized protection in a featherweight, flame-resistant fabric. Bisley, in conjunction with TenCate Protective Fabrics, have created the lightest version of TenCate Tecasafe® Plus. At just 160 grams per square metre, TenCate Tecasafe® Plus 480, joins TenCate Tecasafe® Plus 580 and 700, to deliver a perfect balance of outstanding protection and exceptional comfort. A lighter weight fabric that provides a more comfortable and cooler feel without sacrificing protection.

TENCATE

## Tecasafe® Plus



# 10 POINTS TO PEACE OF MIND

1. TenCate Protective Fabrics, the World's largest inherent FR Fabric Manufacturer
2. Bisley has the largest range and volume of FR stock on hand in Australia
3. Tecasafe® Plus is manufactured in the U.S.A. using the highest quality branded fibres
4. Bisley has back up fabric held in our factories and shortest possible lead times on delivery
5. Bisley allows low minimum quantities on made to order garments (300 units on garments using stocked fabrics)
6. Tecasafe® Plus production processes are of the highest standard, including UL certification
7. Reputable testing is carried out on each batch of fabric and tests are kept on record
8. Fabric is tested to European and US standards
9. Vented and non-vented options are available in most garments
10. Bisley's national sales force is trained and knowledgeable with regards to FR standards.

 **TENCATE**

# Tecasafe® Plus





## Tecasafe® Plus

# BISLEY AND TENCATE INNOVATION AND TECHNOLOGY

All Tecasafe® Plus fabrics incorporate TenCate Coolderm Technology with the following attributes:

- Inherently flame-resistant (FR) fabrics, the protection will never wash out or wear away
- Active moisture wicking that moves sweat and moisture away from the wearer's skin and disperses it over a wider surface area
- An evaporative cooling effect occurs as fabric dries, helping to regulate the temperature of the wearer
- All Tecasafe® Plus fabrics arrive soft and ready-to-wear without a need for break in
- Coolderm Technology fabrics are hypoallergenic for the most sensitive skin
- With no harsh chemicals used to treat FR fabrics, Tecasafe® Plus helps protect the planet too.

Lightweight (160gsm), soft to the touch, breathable, and with active moisture wicking

Fabric and garments are tested to both European and US standards

Developed with TenCate, the world's leading flame-resistant (FR) fabric innovators



PPE 1  
(HRC 1)**TEGASAFE® PLUS 480**

**BISLEY IS AUSTRALIA'S LEADING WORKWEAR AND SAFETYWEAR BRAND. OUR LATEST RANGE OF FLAME-RESISTANT LIGHTWEIGHT SAFETYWEAR ENSURES COMFORT DURING TIMES OF EXTREME HEAT STRESS, AS WELL AS THE CONFIDENCE THAT BISLEY WORKWEAR OFFER THE HIGHEST LEVEL OF PROTECTION.**



**BS8237T****TENCATE TECASAFE® PLUS 480 TAPED TWO TONE HI VIS LIGHTWEIGHT VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas loop on both sides
- / Left chest pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)**SIZES** XS – 6XL**FABRIC** TenCate Tecasafe® Plus 480,  
FR Modacrylic Lyocell Aramid **160gsm**, TenCate FR Mesh**BS8238T****TENCATE TECASAFE® PLUS 480 TAPED HI VIS LIGHTWEIGHT FR VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas loop on both sides
- / Left chest pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Orange (BVE0)**SIZES** XS – 6XL**FABRIC** TenCate Tecasafe® Plus 480,  
FR Modacrylic Lyocell Aramid **160gsm**, TenCate FR Mesh

PPE 1  
(HRC 1)

TECASAFE® PLUS 580

Soft and breathable. Superior moisture management because of special cellulosic fibre content.

Back venting



Reflective taped hoop pattern

Underarm venting



If you're not wearing protective work clothing made with TenCate Tecasafe® Plus fabric, demand it. Your safety may depend on it.

TENCATE  
**Tecasafe® Plus**



Two way radio loop  
or gas monitor  
loop on both sides

A lighter weight fabric that provides  
a more comfortable and cooler feel,  
without sacrificing any protection

TenCate Tecasafe® Plus  
580 delivers a perfect  
balance of outstanding  
protection and  
exceptional comfort





PPE 1  
(HRC 1)

TECASAFE® PLUS 580

**BL8097T****WOMENS TENCATE TECASAFE® PLUS 580 TAPED HI VIS LIGHTWEIGHT FR VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Orange (BVE0)**SIZES** 8 – 24**FABRIC** TenCate Tecasafe® Plus 580FR Modacrylic Lyocell Aramid **197gsm**, TenCate FR Mesh**BL8098T****WOMENS TENCATE TECASAFE® PLUS 580 TAPED TWO TONE HI VIS LIGHTWEIGHT FR VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)**SIZES** 8 – 24**FABRIC** TenCate Tecasafe® Plus 580FR Modacrylic Lyocell Aramid **197gsm**, TenCate FR Mesh**BS8097T****TENCATE TECASAFE® PLUS 580 TAPED HI VIS LIGHTWEIGHT FR VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Orange (BVE0)**SIZES** XS – 6XL**FABRIC** TenCate Tecasafe® Plus 580FR Modacrylic Lyocell Aramid **197gsm**, TenCate FR Mesh





## BS8098T

### TENCATE TECASAFE® PLUS 580 TAPED TWO TONE HI VIS LIGHTWEIGHT FR VENTED SHIRT

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)

**SIZES** XS – 6XL

**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197gsm**, TenCate FR Mesh



## BP8190T

### TENCATE TECASAFE® PLUS 580 TAPED LIGHTWEIGHT FR PANT

- / Sto-nor 9801 FR Reflective tape around upper leg
- / Straight waistband
- / Front angled pockets
- / Back hip patch pocket with flap and press snap closure
- / Twin needle topstitched seams
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 77 – 112R, 87 – 132S

**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197gsm**



## BPC8189T

### TENCATE TECASAFE® PLUS 580 TAPED LIGHTWEIGHT FR CARGO PANT

- / Sto-nor 9801 FR Reflective tape around upper leg
- / Straight waistband
- / Front angled pockets
- / Back hip patch pocket with flap and press snap closure
- / Cargo pockets with flap and press snap closure
- / Wide belt loops
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 72 -112R, 87 -132S

**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197gsm**





PPE 1  
(HRC 1)

TECASAFE® PLUS 580

**BC8185T****TENCATE TECASAFE® PLUS 580 TAPED HI VIS LIGHTWEIGHT  
FR NON VENTED ENGINEERED COVERALL**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body and lower leg
- / Concealed press snap front closure
- / Stand collar
- / Two way radio loop or gas monitor loop on both sides
- / Front angled pockets
- / Front knee darts and contoured back knee seam line
- / Full gusset sleeve cuff with plastic press snap closure
- / Diamond shape crotch gusset
- / Ten multifunctional pockets

**COLOURS (CODE)** Orange (BVE0)**SIZES** 77 – 117R, 92 – 132S**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197 gsm****BC8186T****TENCATE TECASAFE® PLUS 580 TAPED TWO TONE HI VIS LIGHTWEIGHT  
FR NON VENTED ENGINEERED COVERALL**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body and lower leg
- / Concealed press snap front closure
- / Stand collar
- / Two way radio loop or gas monitor loop on both sides
- / Front angled pockets
- / Front knee darts and contoured back knee seam line
- / Full gusset sleeve cuff with plastic press snap closure
- / Diamond shape crotch gusset
- / Ten multifunctional pockets

**COLOURS (CODE)** Orange/Navy (TT02)**SIZES** 77 – 117R, 92 – 132S**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197gsm**



# FR GARMENTS FOR ELECTRICAL ARC HAZARD PROTECTION [ENA NENS 09-2014]

## ENA NENS 09-2014

It is not an Australian standard requiring full compliance.

The guideline sets the minimum criteria for the selection, use and maintenance of Personal Protective Equipment (PPE) used to protect workers and others against the electrical arc hazards within the Electricity Supply Industry.

This guideline covers the clothing and apparel designs, the minimum performance levels of the materials used, and the methods of testing to determine the performance levels.

## BASE GARMENTS RECOMMENDATION

Base garments may be in the form of the following:

- Long sleeve shirts
- Trousers
- Coveralls/Overalls

The recommended minimum ATPV for base garments is  $16.7\text{J}/\text{cm}^2$  ( $4\text{cal}/\text{cm}^2$ ) = PPE (HRC 1)

## GARMENT DESIGN RECOMMENDATION

**Shirt Front Opening** – For shirts used in environments having electric arc hazards, it is recommended that they be manufactured with a 'closed front'. Where buttons are used on shirt openings, they should be covered by a placket of the shirt material (known as a fly front design).

**Coverall Front Opening** – The coverall should be manufactured with continuous, full length, front closure eg zipper. Press studs or buttons are not recommended as front closure mechanisms.

**Sleeve Cuffs** – Recommended to include a full gusset at sleeve cuff or similar secure sleeve enclosure.

**Vents** – If vents are incorporated into the base garments, the vent mesh material should be flame resistant. The fabric and design of the vents should ensure that the garments' arc protective properties are not compromised.



PPE 1  
(HRC 1)

NEWS [ENA NENS 09-2014]

**BS8238T****TENCATE TECASAFE® PLUS 480 TAPED HI VIS LIGHTWEIGHT FR VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas loop on both sides
- / Left chest pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Orange (BVEO)**SIZES** XS – 6XL

**FABRIC** TenCate Tecasafe® Plus 480  
FR Modacrylic Lyocell Aramid **160gsm**, TenCate FR Mesh

**BS8237T****TENCATE TECASAFE® PLUS 480 TAPED TWO TONE HI VIS LIGHTWEIGHT FR VENTED SHIRT**

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas loop on both sides
- / Left chest pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)**SIZES** XS – 6XL

**FABRIC** TenCate Tecasafe® Plus 480  
FR Modacrylic Lyocell Aramid **160gsm**, TenCate FR Mesh

**BP8190T****TENCATE TECASAFE® PLUS 580 TAPED LIGHTWEIGHT FR PANT**

- / Sto-nor 9801 FR Reflective tape around upper leg
- / Straight waistband
- / Front angled pockets
- / Back hip patch pocket with flap and press snap closure
- / Twin needle topstitched seams
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)**SIZES** 77 – 112R, 87 – 132S

**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197gsm**







**BPC8189T**  
**TENCATE TECASAFE® PLUS 580 TAPED**  
**LIGHTWEIGHT FR CARGO PANT**

- / Sto-nor 9801 FR Reflective tape around upper leg
- / Straight waistband
- / Front angled pockets
- / Back hip patch pocket with flap and press snap closure
- / Cargo pockets with flap and press snap closure
- / Wide belt loops
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 72 – 112R, 87 -132S

**FABRIC** TenCate Tecasafe® Plus 580  
FR Modacrylic Lyocell Aramid **197gsm**





PPE 2  
(HRC 2)

## TEGASAFE® PLUS 700

Action back panel ventilation,  
with two openings and  
underarm ventilation

Developed with TenCate, the  
world's leading flame-resistant  
(FR) fabric innovators







## BL8082T

### WOMENS TENCATE TECASAFE® PLUS 700 TAPED TWO TONE HI VIS FR VENTED SHIRT

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Concealed press snap front closure
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)

**SIZES** 8 – 24

**FABRIC** TenCate Tecasafe® Plus 700  
FR Modacrylic Lyocell Aramid **238gsm**, TenCate FR Mesh



## BS8081T

### TENCATE TECASAFE® PLUS 700 TAPED HI VIS FR VENTED SHIRT

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Orange (BVE0)

**SIZES** XS – 6XL

**FABRIC** TenCate Tecasafe® Plus 700  
FR Modacrylic Lyocell Aramid **238gsm**, TenCate FR Mesh



## BS8082T

### TENCATE TECASAFE® PLUS 700 TAPED TWO TONE HI VIS FR VENTED SHIRT

- / Sto-nor 9801 FR Reflective taped hoop pattern around body
- / Two piece structured collar
- / Two way radio loop or gas monitor loop on both sides
- / Left pocket with pen division
- / Twin chest pockets with plastic press snap closure
- / Full gusset sleeve cuff with plastic press snap closure
- / Action back panel ventilation with two openings and underarm ventilation

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)

**SIZES** XS – 6XL

**FABRIC** TenCate Tecasafe® Plus 700  
FR Modacrylic Lyocell Aramid **238gsm**, TenCate FR Mesh



# TECASAFE® PLUS 700

PPE 2  
(HRC 2)



## BPL8092T

**WOMENS TENCATE TECASAFE® 700 PLUS TAPED  
FR ENGINEERED CARGO PANT**

- / Sto-nor 9801 FR Reflective tape around upper leg
- / Curved waistband to prevent gaping at back
- / Front angled pockets
- / LHS cargo pockets
- / Mobile phone welt pocket
- / Back hip welt pockets with touch tape
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 6 – 24

**FABRIC** TenCate Tecasafe® Plus 700  
FR Modacrylic Lyocell Aramid **238gsm**



## BP8090 [BP8090T TAPED]

**TENCATE TECASAFE®  
PLUS 700 FR PANT**

- / Sto-nor 9801 FR Reflective tape around upper leg (BP8090T only)
- / Straight waistband
- / Front angled pockets
- / Back hip patch pocket with flap and press snap closure
- / Twin needle topstitched seams
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 77 – 112R, 87 – 132S

**FABRIC** TenCate Tecasafe® Plus 700  
FR Modacrylic Lyocell Aramid **238gsm**



[BP8090T only]



## BPC8092 [BPC8092T TAPED]

**TENCATE TECASAFE® PLUS 700 ENGINEERED  
FR VENTED CARGO PANT**

- / Sto-nor 9801 FR Reflective tape around lower leg [BPC8092T only]
- / Curved waistband to prevent gaping at back
- / Front angled pockets
- / LHS cargo pockets covered with flap and hidden ruler pocket
- / Front knee darts with contoured back knee seam line
- / Back yoke ventilation
- / Double back hip welt pocket covered with flap
- / Mobile phone welt pocket
- / Diamond shape crotch gusset
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 77 – 112R, 87 – 132S

**FABRIC** TenCate Tecasafe® Plus 700  
FR Modacrylic Lyocell Aramid **238gsm**, TenCate FR Mesh



[BPC8092T only]





## BC8085T

### TENCATE TECASAFE® PLUS 700 TAPED HI VIS ENGINEERED FR VENTED COVERALL

- / Sto-nor 9801 FR Reflective taped hoop pattern around body and lower leg
- / Concealed press snap front closure
- / Stand collar
- / Two way radio loop or gas monitor loop on both sides
- / Front angled pockets
- / Front knee darts and contoured back knee seam line
- / Full gusset sleeve cuff with plastic press snap closure
- / Underarm and action back panel ventilation
- / Diamond shape crotch gusset
- / Ten multifunctional pockets

**COLOURS (CODE)** Orange (BVE0)

**SIZES** 77 – 117R, 92 – 132S

**FABRIC** TenCate Tecasafe® Plus 700,  
FR Modacrylic Lyocell Aramid **238gsm**, TenCate FR Mesh



TENCATE  
Tecasafe® Plus



## BC8086T

### TENCATE TECASAFE® PLUS 700 TAPED TWO TONE HI VIS ENGINEERED FR VENTED COVERALL

- / Sto-nor 9801 FR Reflective taped hoop pattern around body and lower leg
- / Concealed press snap front closure
- / Stand collar
- / Two way radio loop or gas monitor loop on both sides
- / Front angled pockets
- / Front knee darts and contoured back knee seam line
- / Full gusset sleeve cuff with plastic press snap closure
- / Underarm and action back panel ventilation
- / Diamond shape crotch gusset
- / Ten multifunctional pockets

**COLOURS (CODE)** Yellow/Navy (TT01), Orange/Navy (TT02)

**SIZES** 77 – 117R, 92 – 132S

**FABRIC** TenCate Tecasafe® Plus 700,  
FR Modacrylic Lyocell Aramid **238gsm**, TenCate FR Mesh



TENCATE  
Tecasafe® Plus



# TenCate PROTECTIVE FABRICS

# FABRIC DATA

PROPERTIES	480	480 TRUECOLOUR™	580	580 TRUECOLOUR™	700	700 TRUECOLOUR™
Nominal Weight	160 gsm	160 gsm	200 gsm	200 gsm	240 gsm	240 gsm
Woven Type	Plain	Plain	Twill	Twill	Twill	Twill
Fibre Content	Modacrylic, Lyocell and Aramid					
High-Visibility Colors Available						
ANSI 107-2010 Yellow	Yes	-	Yes	-	Yes	-
CSA Z96-2009 Orange	Yes	-	Yes	-	Yes	-
Colors Available	Yellow, Orange	Navy Blue	HV Yellow, Yellow, Orange, Royal Blue, Red, Light Blue, Gray and Khaki	Navy Blue, Spruce Green, Black	HV Yellow, Yellow, Orange, Royal Blue, Red, Light Blue, Gray and Khaki	Navy Blue, Spruce Green, Black
Coolderm™ Technology	Yes	Yes	Yes	Yes	Yes	Yes
Made in America	Yes	Yes	Yes	Yes	Yes	Yes
PROTECTION	480	480 TRUECOLOUR™	580	580 TRUECOLOUR™	700	700 TRUECOLOUR™
NFPA 70E PPE Rating	Category 1	Category 1	Category 1	Category 1	Category 2	Category 2
Electric Arc Rating ASTM 1959	5.0 cal/cm <sup>2</sup>	6.3 cal/cm <sup>2</sup>	6.5 cal/cm <sup>2</sup>	7.1 cal/cm <sup>2</sup>	9.0 cal/cm <sup>2</sup>	11.0 cal/cm <sup>2</sup>
Predicted Body Burn ASTM 1930/NFPA 2112	Pass	Pass	Pass	Pass	Pass	Pass
Thermal Protective Performance NFPA 2112						
With Spacer	9.7 cal/cm <sup>2</sup>	9.9 cal/cm <sup>2</sup>	9.6 cal/cm <sup>2</sup>	9.1 cal/cm <sup>2</sup>	12.3 cal/cm <sup>2</sup>	10.5 cal/cm <sup>2</sup>
Without Spacer	7.7 cal/cm <sup>2</sup>	6.7 cal/cm <sup>2</sup>	6.6 cal/cm <sup>2</sup>	6.7 cal/cm <sup>2</sup>	10.9 cal/cm <sup>2</sup>	8.0 cal/cm <sup>2</sup>
Flame Resistance ASTM 6413, NFPA 2112						
Before Laundering	< 10.0 cm	< 10.0 cm	< 10.0 cm	< 10.0 cm	< 10.0 cm	<10.0cm
After Laundering	none	none	none	none	none	none
Flame Spread ISO 15025:2000						
Face Ignition PROCEDURE A						
Edge Ignition PROCEDURE B, Folded Edge	No hole formation. No molten or flaming debris. No after flame. No afterglow.No molten or flaming debris. No after flame. Afterglow did not spread.					
Heat Transfer (Radiation) ISO 6942:2002 METHOD B at 20kW/m <sup>2</sup>	t24 = 12.1 sec TF = 58% t24 - t12 = 5.8 sec	t24 = 10.9 sec TF = 63% t24 - t12 = 5.2 sec	t24 = 13.0 sec TF = 58% t24 - t12 = 5.7 sec	t24 = 12.7 sec TF=62% t24-t12 = 5.4 sec	24 = 13.9 sec TF = 55% t24 - t12 = 6.1 sec	t24 = 13.6 sec TF = 58% t24 - t12 = 5.7 sec
Heat Resistance ISO 17493:2000 at 260°C, 5 minutes	< 10.0%	< 10.0%	< 10.0%	< 10.0%	< 10.0%	< 10.0%
FABRIC STRENGTH	480	480 TRUECOLOUR™	580	580 TRUECOLOUR™	700	700 TRUECOLOUR™
Tensile Strength ISO 13934-1:1999	525 N x 385 N	490 N x 375 N	725 N x 530 N	690 N x 540 N	1,005 N x 655 N	1,025 N x 655 N
Tear Strength ISO 4674-1:2003 METHOD B	21 N x 16 N	21 N x 17 N	29 N x 31 N	36 N x 44 N	35 N x 35 N	37 N x 41 N
COMFORT & APPEARANCE	480	480 TRUECOLOUR™	580	580 TRUECOLOUR™	700	700 TRUECOLOUR™
Dimensional Change ISO 5077:1984	< 3.0%	≤ 3.0%	≤ 3.0%	≤ 3.0%	≤ 3.0%	≤ 3.0%
Pilling Resistance ASTM 3512, Ratings: 5 Best, 3 Acceptable, 1 Poor	4 to 5	4 to 5	5	5	5	4 to 5
Air Permeability ASTM 3787	140	140	92	92	53	53
SunSHIELD™ UV Protection	25 UPF	25 UPF	50+ UPF	50+ UPF	50+ UPF	50+ UPF





Tecasafe® Plus

# HOW IMPORTANT IS AN ANTISTATIC GARMENT?

An ESD (Electrostatic Discharge) is a spark of static electricity – literally a tiny bolt of lightning - released by contact between two electrically charged objects.

While most ESD events are harmless, in industrial environments ESD can cause explosions, circuit failure and equipment failure. It is important for manufacturers to avoid highly charging materials and provide measures such as antistatic devices and conductive flooring as well as controlling humidity.

Craig Tutterow, Senior Product Development Engineer at TenCate says: "The most important factor in controlling static is grounding your workers. Discharge static from individuals before they enter the site, and provide conductive footwear and wristlets connected to the ground where necessary."

Wearing garments that effectively dissipate static electricity also plays a big part in safety. Bisley Workwear reduces the amount of static electricity conducted by the body with the help of natural fabrics like cottons, and flame-resistant fabrics like Tecasafe® Plus.

Says Tutterow: "At TenCate, we run a static decay test\* for fabrics; first applying a positive charge and measuring the time it takes for the charge to dissipate, and then applying a negative charge. Before testing, the fabric specimens are conditioned in a low humidity chamber for 24 hours. As you might guess, this makes it more difficult to get rid of the static charge."

Fabrics that resist static best can absorb moisture and humidity, says Tutterow: "An important fabric property that impacts ESD is moisture regain. The more moisture a fabric can absorb from the atmosphere, the more conductive it becomes, allowing static charges to dissipate faster. Fabrics with higher moisture regain, like Tecasafe® Plus, do not need to be reinforced with antistatic fibres at all."

As a general precaution, Tutterow recommends that no garment (such as a jacket) be removed in the presence of potentially flammable vapours or materials that could ignite from a static discharge. "Even garments made from fabrics with antistatic fibres could still have a discharge when they are being taken off" he says.

Tutterow points out that standards such as NFPA 2112 do not include any specifications for static decay performance, so it is important to check your FR product has been rigorously tested for static decay.



# WESTEX ULTRASOFT® & DENIM

FR  
RANGE

## BP8091 [BP8091T TAPED]

### FR DENIM JEAN

- / Inherent flame resistant denim fabric
- / Sto-nor 9801 FR Reflective tape around upper leg (BP8091T only)
- / Twin back hip patch pockets with press snap closure
- / Front angled pockets
- / Seven reinforced belt loops
- / Reinforced stitching at front and back rise
- / YKK zipper

**COLOURS (CODE)** Dark Denim (BDAD)

**SIZES** 77 – 112R, 87 – 132S

**FABRIC** 70% Manmade Inherent Fibre,  
30% Cellulosic Fibre Denim, **400gsm**



## BP8000

### WESTEX ULTRASOFT® 3M TAPED FR WORK PANT

- / 3M 8935 FR Reflective tape around lower legs
- / Mobile phone pocket on right side
- / Seven reinforced belt loops
- / Single front pleats
- / Back patch pockets
- / Coin pocket in waistband
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 77 – 112R, 87 – 132S, 74 – 94L

**FABRIC** Westex UltraSoft® Flame Resistant Fabric (301),  
88% Cotton, 12% High Tenacity Nylon **237gsm**



## BP8010

### WESTEX ULTRASOFT® FR WORK PANT

- / Mobile phone pocket on right side
- / Seven reinforced belt loops
- / Single front pleats
- / Back patch pockets
- / Coin pocket in waistband
- / YKK zipper

**COLOURS (CODE)** Navy (BPCT)

**SIZES** 77 – 112R, 87 – 132S, 74 – 94L

**FABRIC** Westex UltraSoft® Flame Resistant Fabric  
(301) 88% Cotton, 12% High Tenacity Nylon **237gsm**











## FR HEAT TRANSFER

- FR transfers are flame retardant, durable transfers with FR certification
- Certified to EN ISO 11612:2008 after washing at EN ISO 15797:2002 and testing to EN ISO 15025:2000
- Ideal for use on FR garments as they will not compromise the FR qualities of the garment
- Heavy duty and very hard wearing, able to withstand the rigours of laundering and dry cleaning
- Suitable to use on all FR fabrics (eg. Tecasafe PLUS®, Westex Ultrasoft®)
- Logos can be developed to match your corporate colours



## FR EMBROIDERY

- FR embroidery is flame and heat resistant and uses Madeira brand "Fire Fighter" embroidery thread
- Fire Fighter is made from 100% aramid thread and contains Nomex branded fibers from Du Pont
- Certified to Oeko-Teks and complies with ISO standards ISO-6941/ISO 15025
- For use in all sectors with specific safety requirements (eg. Aeronautics, Fire Brigade)
- 24 colour options offered in Madeira embroidery

# Bisley FLAME RESISTANT

## MADE TO ORDER

To compliment the large range of Bisley FR solutions that are stock supported in our warehouses, we have an equal number of custom made solutions available with a quick turnaround.

Bisley is committed to providing a comprehensive end to end product solution with a focus on meeting cost targets and delivering on time.

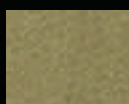
- Design services from concept through to delivered product ensuring compliance to any relevant safety standards.
- Only 6 weeks production lead time + transit time\* for Bisley's stocked TenCate Tecasafe Plus fabric colours (Navy, Yellow, Orange).
- Only 300 units minimum order on all stocked colours in the TenCate Tecasafe Plus Range #
- A comprehensive range of personalised solutions available – FR Embroidery, FR Heat Transfers. Please see details below.
- Custom Tecasafe Plus fabric colours can be developed upon request but will have higher minimum order quantities and longer lead times.

\*Please allow 5 weeks shipping and clearance.

#Lead times on colours other than Navy, Yellow, Orange will need to be confirmed during the design process.



LIGHT BLUE



KHAKI



ROYAL BLUE



RED



NAVY



GREY



YELLOW



ORANGE



HI VIS YELLOW

Fabric held in stock

X

X

X

MTO Fabric

X

X

X

X

X

X

FR Mesh held in stock

X

X

\* Transit time will depend on air-freight vs sea-freight cost options provided at the time of quoting

^ Whilst custom Tecasafe colours can be developed upon request, they do have lighter minimums and longer lead times, but regardless of your needs, contact your Bisley Sales Representative and arrange a meeting to discuss your requirements.



## NENS

[ENA NENS 09-2014]



TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BS8238T**



TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BS8237T**



TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
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TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
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TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BS8237T**



TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BS8237T**

## TECASAFE® PLUS 480



TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BS8237T**



TENCATE TECASAFE® PLUS 480 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BS8238T**

## TECASAFE® PLUS 580



TENCATE TECASAFE® PLUS 580 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BL8097T**



TENCATE TECASAFE® PLUS 580 TAPED HI VIS  
LIGHTWEIGHT FR VENTED SHIRT | **BL8098T**

# DENIM

# TECASAFE® PLUS 700



3M TAPED FR DENIM JEAN | **BP8091**  
(BP8091TT TAPED)

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# WESTEX ULTRASOFT®



WESTEX ULTRASOFT® 3M TAPED FR WORK PANT | **BP8000**

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WESTEX ULTRASOFT® FR WORK PANT | **BP8010**

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WOMENS TENCATE TECASAFE® 700 PLUS TAPED FR  
ENGINEERED CARGO PANT | **BPL8092T**

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TENCATE TECASAFE® PLUS 700 TAPED FR PANT | **BP8090**  
(BP8090T TAPED)

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TENCATE TECASAFE® PLUS 700 ENGINEERED FR VENTED CARGO  
PANT | **BPC8092** | (BPC8092T TAPED)

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TENCATE TECASAFE® PLUS 700 TAPED HI VIS ENGINEERED FR VENTED  
COVERALL | **BC8085T**

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TENCATE TECASAFE® PLUS 700 TAPED TWO TONE HI VIS ENGI-  
NEERED FR VENTED COVERALL | **BC8086T**

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WOMENS TENCATE TECASAFE® PLUS = TAPED TWO TONE HI VIS FR  
VENTED SHIRT | **BL8082T**

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TENCATE TECASAFE® PLUS 700 TAPED HI VIS FR VENTED  
SHIRT | **BS8081T**

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TENCATE TECASAFE® PLUS 700 TAPED TWO TONE HI VIS FR  
VENTED SHIRT | **BS8082T**

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