PIONEER®
ESTABLISHED 1887

SAFETY APPAREL
2019 U.S. CATALOG

A SureWerx™ Brand

Pioneer History

The Pioneer story began in 1887 in boomtown Vancouver. In the 1890s, the founders grew the business quickly by supplying gear to prospectors arriving from all over North America heading to the famous Alaska/Yukon Klondike Gold Rush. These "sourdough prospectors", as they were called, fought mountainous terrain and the harshest climates in their long journeys to the northern goldfields. They relied heavily on their Pioneer gear to help them get the job done. Pioneer has now been keeping workers safe and comfortable for over 130 years.

Over these years, Pioneer has grown a reputation for designing and building high-quality and innovative protective and safety apparel.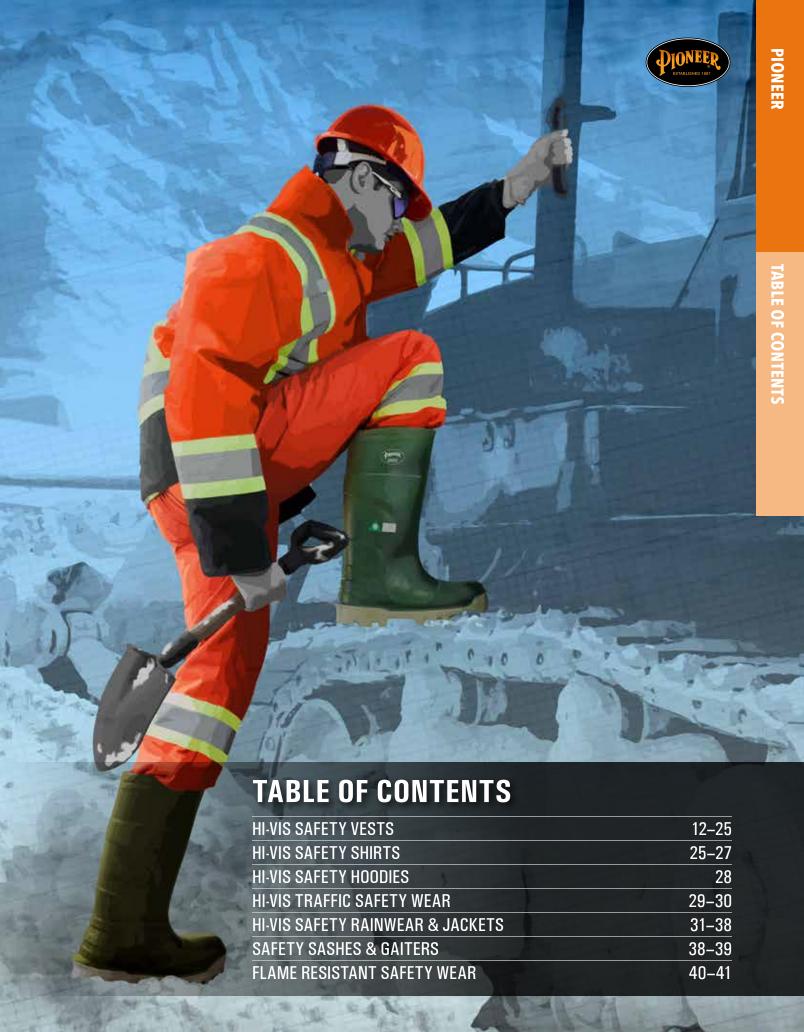 Using only the best/safest materials, componentry, and by using advanced sewing methods, Pioneer continues to deliver on safety, fit, durability, comfort and value for the professional worker.

Today Pioneer offers a complete selection of safety clothing including Hi-Vis gear, flame resistant wear, rainwear and much more… plus custom embroidery solutions. SureWerx combines Pioneer with the rest of the SureWerx family of safety brands to offer protection to workers from head to toe.

Klondikers carrying supplies ascending the Chilkoot Pass, circa 1898

Why Choose Pioneer?

- Century long reputation for delivering the highest quality and most durable safety apparel
- Independently tested to meet and exceed all stated safety standards
- Innovative new product solutions based on the voice of the customer
- Unique bar tacking operation on all key seams, pockets, and other areas of stress
- No surcharge for larger sizes
- Custom embroidery and silk screen solutions available
- Exclusive StarTech® reflective tape

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ANSI/ISEA 107-15 AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES

What is **ANSI/ISEA 107-15** American National Standard for High Visibility Safety Apparel and Accessories?

The latest ANSI/ISEA 107-15 version consolidates the requirements of ANSI/ISEA 107-2010 and ANSI/ISEA 207, American National Standard for High-Visibility Public Safety Vests, in an effort to establish a single comprehensive document that considers all occupational tasks. The standard continues to present three performance classes of garments based on the amount of visible materials and design attributes incorporated into the final configuration, and identifies garment types based on expected use settings and work activities being performed. These are designated as off-road (type O), roadway and temporary traffic control (type R), or public safety activities (type P). For a detailed explanation of these standards, visit www.safetyequipment.org/ansiisea-107-2015.

Listed below is a simplified explanation of the ANSI/ISEA 107-15 classes of garments:

CLASS 1—TYPE O (Off Road)

Class 1 safety apparel are for workers whose jobs puts them at the lowest risk level. These would be for environments where traffic is traveling at or below 25 mph and work is taking place at a safe distance from a roadway. An example of this type of work would be sidewalk repair in a small residential neighborhood.

According to ANSI, in order for a vest to qualify as a Class 1 Type O safety apparel, it must have 217 square inches of background material in safety yellow or safety orange and have a minimum of 155 square inches of reflective tape. These reflective stripes must go around the middle of the vest as well as over the shoulder. These ANSI safety vests are designed to cover the torso only and do not require sleeves.

As defined by ANSI, "Performance Class 1 provides the minimum amount of high-visibility materials required to differentiate the wearer visually from non-complex work environments, in scenarios in which the struck-by hazards will not be approaching at roadway speeds, and therefore operative detection and identification distances."

- Basic harness or safety tape over the shoulders and encircling the waist.
- Suitable in less complex work areas where workers are separated from car and truck traffic.
- **Example:** Class 1 = Class 1 tape configuration + non-retroreflective background material.
- Pioneer model #135AU (V1021571U) **Hi-Vis Safety Vest** and Pioneer model #337SFU (V2570470U) **Flame Resistant Zip Style Heavyweight Cotton Safety Hoodie** are both Class 1—Type O HVSA.

CLASS 1–TYPE O

ANSI/ISEA 107-15 AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES

CLASS 2—TYPE R and/or P (Roadway, Temporary Traffic Control, and/or Public Safety

Class 2 safety apparel is intended for working environments that pose a greater risk than Class 1. This can include workers who are on a roadway where traffic is moving under 50 mph. This apparel is larger than their Class 1 counterparts because they require more high visibility and reflective areas to be present. A Class 2 vest, for example, must have at least 775 square inches of safety yellow or safety orange background material and 201 square inches of reflective striping. Class 2 apparel are commonly worn by survey crews, airport baggage handlers, and school crossing guards.

- Full coverage of the upper torso including front, back, sides and over the shoulders.
- The background material must be high visibility.
- For use in more complex or low-light work areas requiring greater visibility.
- **Example:** Class 2 = Class 2 tape configuration + retroreflective background material.
- Pioneer model #6959U (V1023860U) **Hi-Vis Solid Multi-Pocket Safety Vest** and Pioneer model #6990U (V1051150U) **Birdseye Safety T-Shirt** are both Class 2— Type R and P garments.

CLASS 3—TYPE R and/or P (Roadway, Temporary Traffic Control, and/or Public Safety

Class 3 safety apparel is reserved for people working in the most dangerous environments where visibility is the highest priority. This includes roadways where traffic is traveling in excess of 50 mph, but it can also apply to emergency personnel or tow truck operators working in extreme weather conditions where visibility is at a minimum.

Class 3 ANSI approved safety apparel requires the most background fabric and reflective striping. The standard includes 1,240 square inches of safety yellow or safety orange background with 310 square inches of reflective striping.

As defined by ANSI, "Performance Class 3 can offer greater visibility to the wearer in both complex backgrounds and through a full range of body movements by mandatory placement of background, retroreflective and combined-performance materials on sleeves and pant legs (if present). Regardless of the area of materials used, a sleeveless garment or vest alone shall not be considered Performance Class 3."

- A Class 2 garment combined with arm and leg bands.
- The background material must be high visibility to the standard.
- Hi-Vis coveralls meet this standard; safety jackets (Class 2) and pants (Class E) can be worn combined, or arm/leg bands can be added to Class 2 garments, to attain Class 3.
- Suitable for use in complex work areas where low light, fast-moving traffic and inclement weather are safety factors.
- **Example:** Class 3 = Class 3 tape configuration + retroreflective background material
- Pioneer model #6690U (V1023550U) **Hi-Vis Safety Vest With Sleeves**, Pioneer model #5022U (V1120350U) **Hi-Vis 100% Waterproof 6-In-1 Bomber**, Pioneer model #5999AU (V1070160U) **Hi-Vis Traffic Safety Coverall** are all Class 3—Type R and P garments.

CLASS 2–TYPE R AND/OR P

CLASS 3–TYPE R AND/OR P

SUPPLEMENTAL CLASS E

ANSI/ISEA 107-15 AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES

SUPPLEMENTAL CLASS E

ANSI Supplemental Class E applies to Hi-Vis pants, bib overalls, shorts, and gaiters. Alone, these garments are not ANSI compliant. When combined with a Class 2 or Class 3 garment, the combination satisfies Class 3 requirements. This classification remains the same under the ANSI/ISEA 107-2015 standard.

ANSI designates "pants, bib overalls, shorts, and gaiters" as Class E.

- Class E garments must always be worn in combination with other items to meet HVSA PPE requirements.
- Class E items worn in combination with Performance Class 2 or Class 3 items will achieve an overall classification of Performance Class 3.
- Pioneer model #5404AU (V1200451U) Hi-Vis 300D Ripstop Waterproof Safety Bib Pant and Pioneer model #5999PU (V1070360U) Hi-Vis Traffic Safety Pant are both Class E HVSA.

Safety officials in your region determine the appropriate class wear for specific job sites. Hazardous risk assessment should be performed by a qualified individual to determine the applicable high visibility classification.

Icon legend

Arc Resistant		Quick Dry		Thermal	
Flame Resistant		Tear Resistant		Waterproof	
Packable		Tear-Away		Women's	
		Temperature Range			

-6°F to 19°F
ASTM F2732

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SIZING CHART
Body Measurements (not garment measurements)

Jackets, Coveralls, Overalls																					
	XS	S		M		L		XL		2XL		3XL		4XL		5XL		6XL		7XL	
Size	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
Chest	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
Waist	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66
Arms	32	33		34		35		36		37		38		39		40		41		42	
Hip	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72

Pants (overalls are sized based on chest measurements)																					
	XS	S		M		L		XL		2XL		3XL		4XL		5XL		6XL		7XL	
Size	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66
Waist	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66
Hip	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
Inseam	30.5	31		31.5		32		32.5		33		33.5		34		34.5		35		35.5	

Shirts (select size by neck for closed collar shirts, by chest for open collar shirts)										
	S	M	L	XL	2XL	3XL	4XL	5XL	6XL	7XL
Neck	14–14.5	15–15.5	16–16.5	17–7.5	18–18.5	19–19.5	20–20.5	21–21.5	22–22.5	23–23.5
Chest	34	38	42	46	50	54	58	62	66	70
Sleeve	33.5	34	34.5	35	35.5	36	36.5	37	37.5	38

Women's Garment Sizing						
	XS	S	M	L	XL	2XL
Chest	32	34	36	39	42	45
Waist	24	26	28	31	34	37
Arms	29	30	31	32	33	34
Hip	35	37	39	42	45	48
Inseam	27	28	29	30	31	32

All measurements in inches.
Talls in Coveralls are 2 inches longer in the torso and 1 inch longer in the sleeves and legs.

Measurement Directions:

Neck: Measure around the base of your neck, round up to the next half-inch.
Chest: Measure around your chest, under the arms and across the shoulder blades, over a shirt if stomach is larger than chest; choose the larger size.
Waist: Measure around your waist at the level you normally wear your pants, over a shirt.
Hip: Standing with feet together, measure around the widest part of your hips, parallel to the floor.
Inseam: Measure a good-fitting pair of pants along the inseam, from crotch seam to bottom edge of cuff.
Sleeve: Bend arm and place fist on hip. Measure from centre back of your neck, across shoulder and down arm to elbow and then to your wrist. This is your sleeve length.

For working garments, measure liberally to find your size, as you need freedom of movement.

Ask us about our custom embroidery program

STAR★TECH®

STARTECH® reflective tape is exclusive to Pioneer safety products. It is designed and tested to far exceed the ANSI/ISEA 107-15 high-visibility safety apparel reflective tape standard.

StarTech® reflective tape has been independently tested to meet:

- ANSI 107-15 American National Standards Institute
- EN ISO 20471 High-Visibility Standard Level 2 high-visibility safety apparel and accessories

StarTech® FR tape is made of FR cotton or aramid material as backing and has been independent lab-tested to meet:

- CGSB 155.20-2017 (Heat-Resistant Test)
- NFPA 2112-2018 Standard on Flame-Resistant Garments for Protection of Industrial Personnel against short duration thermal exposure from fire

The many standards for reflective tapes all require passing a battery of tests that simulate working conditions.

These include measuring the retroreflective performance of StarTech® tape after being subjected to abrasion, multiple flexing, cold temperatures, variable temperatures, multiple washings, wet conditions, and, for the FR version, its heat resistance properties as well. Due to its premium design and quality, StarTech® tape not only meets but exceeds all of these standards!

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HI-VIS SAFETY APPAREL

SAFETY, SECURITY, SELECTION

V1021840U
V1021860U
V1021850U

HI-VIS SAFETY VESTS

Women's Custom Fit Hi-Vis Safety Vest

- 136U/139U—ANSI/ISEA 107-15 Class 2 Type P and R
- 139PKU—ANSI/ISEA 107-15 Class 1 Type P Type O
- Tricot polyester
- Front zipper closure
- StarTech® reflective tape provides excellent visibility
- ID pocket with pen holders
- Storage, mobile phone, and inside pockets
- 9 total pockets
- Radiophone clip strand
- Tapered waist and flared bottom design made especially for women

PROD. NO.	MOD. NO.	Color	Sizes
V1021850U	**136U**	Hi-Vis Orange	XS–2XL
V1021860U	**139U**	Hi-Vis Yellow/Green	XS–2XL
V1021840U	**139PKU**	Pink	XS–2XL

HI-VIS SAFETY VESTS

Woven 150D Multi-Pocket Surveyor Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- 150 denier woven twill polyester
- StarTech® reflective tape provides excellent visibility
- Zipper front closure
- Radiophone pocket on chest
- 2 radiophone clip straps
- 4 front pockets with brass surveyor tape dispenser grommet
- 5 pen pockets
- 7 other all-purpose storage pockets
- 19 pockets in total
- Cooling underarm mesh vents
- Back ruler slot
- Large back pack pouch with zipper access
- D-ring access slot

PROD. NO.	MOD. NO.	Color	Sizes
V1010151U	**6692AU**	Hi-Vis Orange	S–4XL
V1010141U	**6693AU**	Hi-Vis Yellow/Green	S–4XL

V1010141U
V1010151U

Mesh Surveyor Vest with Padded Collar

- ANSI/ISEA 107-15 Class 2 Type P and R
- Cool 4 oz. (120 GSM) hi-vis polyester mesh
- Durable and highly breathable mesh with mesh pockets
- StarTech® reflective tape provides excellent visibility
- Full-length zipper with extra-strong webbing reinforcement
- Padded collar for all-day comfort
- Water bottle/paint can holder at left side of waist
- Large radiophone/cell phone front pocket
- 2 radiophone clip straps
- ID pocket with transparent window
- Chest pocket with pen slots
- 2 inside full-width pockets with double hook-and-loop closure
- Inside tablet/storage pocket on left side with support strap
- Flap-covered chest pocket
- Lower pockets with flaps and grommets
- 11 pockets in total
- D-ring access slot below left chest pocket
- Full-width back panel with double-layer zip storage pouch

PROD. NO.	MOD. NO.	Color	Sizes
V1011150U	**6730U**	Hi-Vis Orange	S–4XL
V1011160U	**6731U**	Hi-Vis Yellow/Green	S–4XL

V1011160U
V1011150U

HI-VIS SAFETY VESTS

300D Oxford with Mesh Back Surveyor Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- Durable and breathable
- 4 oz polyester mesh back panel for cool ventilation
- Heavy-duty zipper front closure
- StarTech® reflective tape provides excellent visibility
- Radiophone clip straps
- ID pocket with transparent window
- Left chest pocket with pen slots
- Lower pockets with flaps and grommets
- Right and left inside tablet/storage pocket
- 12 pockets total
- D-ring access slot
- Full mesh back panel with double-layer bottom pouch

PROD. NO.	MOD. NO.	Color	Sizes
V1010250U	**6672U**	Hi-Vis Orange	S–4XL
V1010260U	**6673U**	Hi-Vis Yellow/Green	S–4XL

V1010260U
V1010250U

Full Mesh Surveyor Vest with Padded Collar

- ANSI/ISEA 107-15 Class 2 Type P and R
- Cool Hi-Vis mesh vest with solid material pockets
- 4 oz polyester mesh is durable and provides cool ventilation
- StarTech® reflective tape provides excellent visibility
- Heavy duty zipper closure
- Padded collar for all-day comfort
- Radiophone clip straps
- ID pocket with transparent window
- Left chest pocket with pen slots
- Right and left inside tablet/storage pocket
- 12 pockets total
- Full mesh back panel with double-layer bottom pouch
- D-ring access slot

PROD. NO.	MOD. NO.	Color	Sizes
V1010450U	**6674U**	Hi-Vis Orange	S–4XL
V1010460U	**6675U**	Hi-Vis Yellow/Green	S–4XL

V1010460U
V1010450U

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HI-VIS SAFETY VESTS

Safety Vest

- 131BBAU/134BBAU—ANSI/ISEA 107-15 Class 2 Type P and R
- 135AU/134NAU—ANSI/ISEA 107-15 Class 1 Type O
- Tricot polyester interlock
- Zipper front closure
- StarTech® reflective tape provides excellent visibility
- ID pocket with pen holders
- 3 storage pockets
- 8 pockets total
- Mobile phone pocket
- 2 radiophone clip strands
- Adjustable 1 size up at sides

PROD. NO.	MOD. NO.	Color	Double Sizes
V1020251U	**134BBAU**	Hi-Vis Orange/Black	S/M–4/5XL
V1020161U	**131BBAU**	Hi-Vis Yellow/Green/Black	S/M–4/5XL
V1021571U	**135AU**	Black	S/M–4/5XL
V1021580U	**134NAU**	Navy	S/M–4/5XL

V1021571U, V1021580U
V1020251U, V1020161U

Safety Tear-Away Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- Tricot polyester interlock
- StarTech® reflective tape
- ID pocket
- 5-point tear-away
- 4 sealed pockets
- Radiophone clip strap
- D-ring access slot
- Adjustable 1 size up at front

PROD. NO.	MOD. NO.	Color	Double Sizes
V1020951U	**6930U**	Hi-Vis Orange	S/M–4/5XL
V1021061U	**6931U**	Hi-Vis Yellow/Green	S/M–4/5XL

V1021061U
V1020951U

Zip-Up Snap Break Away Safety Vest

- 6935AU/6936AU—ANSI/ISEA 107-15 Class 2 Type P and R
- 6937AU—ANSI/ISEA 107-15 Class 1 Type O
- 6935AU/6936AU—CSA Z96-15 Class 2 Level 2
- 6937AU—CSA Z96-15 Class 1 Level 2
- Full mesh back panel
- Tear-away snaps on left side of zipper
- Reflective tape X-on back of vest
- StarTech® reflective tape provides excellent visibility
- Tricot polyester interlock front
- Zipper front closure
- 5-point tear-away/snap construction
- 4 sealed pockets
- 2 radiophone clip straps
- D-ring access slot

PROD. NO.	MOD. NO.	Color	Sizes
V1021170U	**6937AU**	Black	XS–5XL
V1021150U	**6935AU**	Hi-Vis Orange	XS–5XL
V1021260U	**6936AU**	Hi-Vis Yellow/Green	XS–5XL

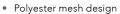V1021260U
V1021150U
V1021170U

HI-VIS SAFETY VESTS

Zip-Up Safety Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- Tricot polyester mesh provides cool comfort
- StarTech® reflective tape provides excellent visibility
- Cell phone pocket with flap
- 2 lower pockets
- Full front zipper

PROD. NO.	MOD. NO.	Color	Sizes
V1060450U	6921U	Hi-Vis Orange	S–4XL
V1060360U	6922U	Hi-Vis Yellow/Green	S–4XL

V1060360U
V1060450U

Tear Away Mesh Safety Vest

- ANSI 107-15 Class 2 Type P and R
- Polyester mesh design
- StarTech® reflective tape provides excellent visibility
- 5-point tear-away
- D-ring access slot
- Adjustable 1 size up at front

PROD. NO.	MOD. NO.	Color	Double Sizes
V1030550U	597U	Hi-Vis Orange	S/M–4/5XL
V1030560U	598U	Hi-Vis Yellow/Green	S/M–4/5XL

V1030560U
V1030550U

Solid Multi-Pocket Safety Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- Tricot polyester interlock
- StarTech® reflective tape provides excellent visibility
- Zipper front closure
- 4 large pockets ideal for keys, phones, and wallet
- ID pocket with transparent window
- Cell phone pocket
- Lower pockets with flaps
- Radiophone clip straps on each shoulder
- Left chest pocket with pen slots and D-ring below
- 9 pockets total

PROD. NO.	MOD. NO.	Color	Sizes
V1023850U	6958U	Hi-Vis Orange	XS–5XL
V1023860U	6959U	Hi-Vis Yellow/Green	XS–5XL

V1023860U
V1023850U

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V1024860U
V1024850U

V1025260U
V1025250U

V1025160U
V1025150U

HI-VIS SAFETY VESTS

Mesh Multi-Pocket Safety Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- Polyester mesh
- Zipper front closure
- StarTech® reflective tape provides excellent visibility
- Radiophone clip straps on each shoulder
- Four large pockets for items such as keys, phones, cards, wallets, etc.
- ID pocket with transparent window on right chest pocket
- Left chest pocket with pen slots and D-ring below
- Lower pockets with flaps
- 9 pockets total

PROD. NO.	MOD. NO.	Color	Sizes
V1024850U	6960U	Hi-Vis Orange	XS–5XL
V1024860U	6961U	Hi-Vis Yellow/Green	XS–5XL

Mesh Multi-Pocket Safety Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- 100% polyester mesh design for cool comfort
- StarTech® reflective tape provides excellent visibility
- Zipper front closure
- Left and right chest mic tab
- Left chest radiophone pocket
- Right chest 2-tier, 4-division pencil pocket
- Clear ID holder with flap
- Lower inside left tablet/storage pocket with support strap
- 8 pockets total

PROD. NO.	MOD. NO.	Color	Sizes
V1025250U	6853U	Hi-Vis Orange	S–5XL
V1025260U	6854U	Hi-Vis Yellow/Green	S–5XL

Multi-Pocket Safety Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- 100% polyester tricot
- StarTech® reflective tape provides excellent visibility
- Zipper front closure
- Left and right check mic tab
- Left chest radiophone pocket
- Right chest 2-tier, 4-division pencil pocket
- Clear ID holder with flap
- Lower inside tablet/storage pocket with support strap
- 8 pockets total

PROD. NO.	MOD. NO.	Color	Sizes
V1025150U	6855U	Hi-Vis Orange	S–5XL
V1025160U	6856U	Hi-Vis Yellow/Green	S–5XL

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HI-VIS SAFETY VESTS

Mesh Safety Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- 100% polyester mesh design for cool comfort
- StarTech® reflective tape provides excellent visibility
- Zipper front closure
- Self-color binding
- Value alternative to safety vests with pockets

PROD. NO.	MOD. NO.	Color	Sizes
V1025050U	**6844U**	Hi-Vis Orange	S–5XL
V1025060U	**6845U**	Hi-Vis Yellow/Green	S–5XL

V1060360U
V1025060U
V1025050U

Polyester Tricot Sleeved Safety Vest

- ANSI 107-15 Class 3 Type P and R
- Polyester tricot design for ultimate breathability
- Durable nylon front zipper
- StarTech® reflective tape provides excellent visibility
- Contrast binding on entire garment and on pocket openings
- 2 radiophone clip straps
- 2 chest pockets, 2 pockets waist pockets

PROD. NO.	MOD. NO.	Color	Sizes
V1023550U	**6690U**	Hi-Vis Orange	S–4XL
V1023560U	**6691U**	Hi-Vis Yellow/Green	S–4XL

V1023560U
V1023550U

Mesh Short Sleeve Safety Vest

- ANSI/ISEA 107-15 Class 3 Type P and R
- Breathable polyester mesh
- StarTech® reflective tape provides excellent visibility
- Zipper front closure
- Left chest cell pocket
- Radiophone clip straps on each shoulder

PROD. NO.	MOD. NO.	Color	Sizes
V1023950U	**6790U**	Hi-Vis Orange	S–4XL
V1023960U	**6791U**	Hi-Vis Yellow/Green	S–4XL

V1023960U
V1023950U

Ask us about our custom embroidery program

HI-VIS SAFETY VESTS

Mesh Economy Safety Vest

- Breathable polyester mesh
- Hook-and-loop front closure
- StarTech® reflective tape provides excellent visibility
- 5-point tear-away

PROD. NO.	MOD. NO.	Color	Sizes
V1030350U	592AU	Hi-Vis Orange	One size
V1030460U	592BU	Hi-Vis Yellow/Green	One size

V1030460U
V1030350U

Plain Mesh Safety Vest

- Breathable polyester mesh
- Silver trim and binding
- 3" hook-and-loop front closure
- 3/4" elastic side closures for universal sizing
- No reflective tape

PROD. NO.	MOD. NO.	Color	Sizes
V1030850U	5191U	Hi-Vis Orange	One size
V1030860U	5192U	Hi-Vis Yellow/Green	One size

V1030860U
V1030850U

Plain Mesh Safety Vest w/ Stripes

- Breathable polyester mesh
- 1"-wide reflective tape, front and back
- Silver tape and binding
- 3" hook-and-loop front closure
- 3/4" elastic side closures for universal sizing

- 595U—ships in a pack of 10

PROD. NO.	MOD. NO.	Color	Sizes	Count
V1030950U	5193U	Hi-Vis Orange	One size	
V1030960U	5194U	Hi-Vis Yellow/Green	One size	
V1030760U	595U	Hi-Vis Yellow/Green	One size	10 pack

V1030960U
V1030950U

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HI-VIS SAFETY VESTS

All-Purpose Mesh Vest

- Polyester mesh
- Yellow PVC reflective tape
- 5-point tear-away
- ID and pen pockets
- 3 storage pockets
- Radiophone clip strap
- D-ring access slot

PROD. NO.	MOD. NO.	Color	Sizes
V1030150U	**145U**	Hi-Vis Orange	One size

V1030150U

HI-VIS SAFETY SHIRTS

Birdseye Safety T-Shirt

- ANSI/ISEA 107-15 Class 2 Type P and R
- Soft premium birdseye moisture-wicking polyester
- StarTech® reflective tape provides excellent visibility
- Rib crew neck
- Chest pocket with hook-and-loop closure
- Radiophone clip strap

PROD. NO.	MOD. NO.	Color	Sizes
V1051150U	**6990U**	Hi-Vis Orange	S–5XL
V1051160U	**6991U**	Hi-Vis Yellow/Green	S–5XL

V1051160U
V1051150U

Birdseye Safety T-Shirt

- ANSI/ISEA 107-15 Class 2 Type P and R
- Reflective tape X on back of shirt
- 100% moisture-wicking birdseye polyester
- StarTech® reflective tape provides excellent visibility
- Lightweight fabric provides all-day comfort
- Left chest pocket

PROD. NO.	MOD. NO.	Color	Sizes
V1054150U	**6885U**	Hi-Vis Orange	S–4XL
V1054160U	**6886U**	Hi-Vis Yellow/Green	S–4XL

V1054150U
V1054160U

HI-VIS SAFETY SHIRTS

Birdseye Safety T-Shirt

- ANSI/ISEA 107-15 Class 2 Type P and R
- 100% moisture-wicking birdseye polyester
- StarTech® reflective tape provides excellent visibility
- Lightweight fabric provides all-day comfort
- Left chest pocket

PROD. NO.	MOD. NO.	Color	Sizes
V1054050U	6882U	Hi-Vis Orange	S–4XL
V1054060U	6883U	Hi-Vis Yellow/Green	S–4XL

V1054060U
V1054050U

Birdseye Safety T-Shirt

- ANSI/ISEA 107-15—fluorescent background material
- 100% moisture-wicking birdseye polyester
- Lightweight and breathable fabric
- Great to wear under safety jackets, vests and reflective belt vests
- Crew neck style

PROD. NO.	MOD. NO.	Color	Sizes
V1051750U	6660U	Hi-Vis Orange	S–4XL
V1051760U	6661U	Hi-Vis Yellow/Green	S–4XL

V1051760U
V1051750U

Cool Pass® T-Shirt

- ANSI/ISEA 107-15 Class 3 Type P and R
- StarTech® Silver Zebra reflective heat-pressed tape
- 100% moisture-wicking birdseye material
- UPF 50+ UV protection
- Lightweight and breathable Cool Pass® fabric
- Stripe around each arm
- Crew neck

PROD. NO.	MOD. NO.	Color	Sizes
V1052150U	6900AU	Hi-Vis Orange	S–4XL
V1052160U	6901AU	Hi-Vis Yellow/Green	S–4XL

V1052160U
V1052150U

Ask us about our custom embroidery program

HI-VIS SAFETY SHIRTS

Birdseye Long-Sleeved Safety Shirt

- ANSI/ISEA 107-15 Class 3 Type P and R
- 100% moisture-wicking birdseye polyester
- StarTech® reflective tape provides excellent visibility
- Lightweight material for all-day comfort
- Left chest pocket
- 2 stripes on arms

PROD. NO.	MOD. NO.	Color	Sizes
V1054250U	**6887U**	Hi-Vis Orange	S–4XL
V1054260U	**6888U**	Hi-Vis Yellow/Green	S–4XL

V1054260U
V1054250U

Birdseye Long-Sleeved Safety Shirt

- ANSI/ISEA 107-15 Class 3 Type P and R
- 100% moisture-wicking birdseye polyester
- StarTech® reflective tape provides excellent visibility
- Lightweight material for all-day comfort
- Left chest pocket
- 1 stripe on arms

PROD. NO.	MOD. NO.	Color	Sizes
V1051250U	**6995U**	Hi-Vis Orange	S–4XL
V1051260U	**6996U**	Hi-Vis Yellow/Green	S–4XL

V1051260U
V1051250U

V1060461U
V1060351U

V1060560U
V1060550U

HI-VIS SAFETY HOODIES

Polyester Fleece Hoodie

- ANSI/ISEA 107-15 Class 3 Type P and R
- Premium 10.5 oz (360 GSM) polyester fleece
- Double-stitched StarTech® reflective tape provides excellent visibility
- Detachable drawstring hood
- Elastic cuffs and hem
- Full front reversible zipper
- 2 front slash pockets
- 2 radiophone clip straps

PROD. NO.	MOD. NO.	Color	Sizes
V1060351U	6924AU	Hi-Vis Orange	S–5XL
V1060461U	6925AU	Hi-Vis Yellow/Green	S–5XL

Micro Fleece Zip Hoodie

- ANSI/ISEA 107-15 Class 3 Type P and R
- 7 oz (240 GSM) micro fleece
- 4-way comfort stretch
- StarTech® reflective tape provides excellent visibility
- Full front zipper
- Detachable drawstring hood
- Elastic cuffs and hem
- 2 front slash pockets
- 2 radiophone clip straps

PROD. NO.	MOD. NO.	Color	Sizes
V1060550U	6940U	Hi-Vis Orange	S–5XL
V1060560U	6941U	Hi-Vis Yellow/Green	S–5XL

HI-VIS TRAFFIC SAFETY WEAR

Traffic Safety Coverall

- ANSI/ISEA 107-15 Class 3 Type P and R
- StarTech® reflective tape provides excellent visibility
- Polyester knit
- Mesh ventilation panels on upper arms and legs
- 2-way brass zipper
- 2 radiophone clip straps
- 2-way 28" leg zippers for ventilation and easy boot access
- Adjustable snap wrists
- 7 storage pockets: 2 rear, 2 chest, 2 side, 1 tool
- Hammer loop
- 2 pass-through pockets
- Elastic waist

Mesh ventilated upper arms and legs

28" leg zippers

28"

PROD. NO.	MOD. NO.	Color	Sizes
V1070160U	**5999AU**	Hi-Vis Yellow/Green	XS–5XL

V1070160U

Traffic Safety Pant

- ANSI/ISEA 107-15 Class E Level 2, Supplemental Type
- StarTech® reflective tape provides excellent visibility
- Polyester knit
- Mesh ventilation panels on upper legs
- Brass zipper fly access
- 2-way 28" leg zippers for ventilation and easy boot access
- 5 storage pockets: 2 side, 2 back, 1 tool
- Elastic waist with drawstring

Mesh ventilated upper legs

28" leg zippers

28"

PROD. NO.	MOD. NO.	Color	Sizes
V1070360U	**5999PU**	Hi-Vis Yellow/Green	XS–4XL

V1070360U

Reflective Traffic Cuffs

- ANSI/ISEA 107-15 Class E, Supplemental Type
- Hi-Vis polyester mesh with solid binding
- StarTech® reflective tape provides excellent visibility
- Long hook-and-loop system for adjustment
- 8" length
- 2-pack hangable format

PROD. NO.	MOD. NO.	Color	Sizes
V1040154U	**166AU**	Hi-Vis Orange	One size
V1040164U	**164AU**	Hi-Vis Yellow/Green	One size

V1040164U
V1040154U

HI-VIS TRAFFIC SAFETY WEAR

Mesh Safety Pants

- ANSI/ISEA 107-15 Class E, Supplemental Type
- Class 3 when paired with ANSI Class 2 or Class 3 vest, shirt or jacket
- 100% polyester lightweight mesh
- 2 pass-through pockets
- Drawstring waist
- StarTech® reflective tape provides excellent visibility

PROD. NO.	MOD. NO.	Color	Double Sizes
V1070760U	**5670U**	Hi-Vis Yellow/Green	2XS/XS–4/5XL

V1070760U

RAINWEAR

3-Piece Repel Rainwear

- Welded seams for waterproof protection
- .35mm PVC/polyester material
- 100% waterproof and windproof
- Includes jacket, detachable hood, and bib pant

Jacket features:
- Vented back and underarms
- 2 large front cargo pockets
- Zipper plus snap storm placket
- Corduroy collar

Bib pant features:
- Adjustable waist and suspenders
- Snap fly access

PROD. NO.	MOD. NO.	Color	Sizes
V3010460U	**577AU**	Yellow	S–5XL

V3010460U

HI-VIS SAFETY RAINWEAR

150D Oxford Poly/PVC Waterproof Suit

- ANSI/ISEA 107-15 Class 3 Type P and R
- Folds into a storage pouch
- 100% waterproof 150 denier Hi-Vis oxford polyester with PU backing
- StarTech® reflective tape provides excellent visibility
- Taped and heat-sealed seams
- Full back vent for breathability

Jacket features:
- 2 lower flap pockets
- Drawstring with toggle on hem
- Half mesh-lined back
- Full front zipper
- Hood folds into collar

Bib Pant features:
- Elastic suspenders
- Metal buckles
- Snaps on leg hems

PROD. NO.	MOD. NO.	Color	Sizes
V1080350U	**5618U**	Hi-Vis Orange	S–4XL
V1080360U	**5619U**	Hi-Vis Yellow/Green	S–4XL

V1080360U
V1080350U

Lightweight Waterproof Suit

- ANSI/ISEA 107-15 Class 1/Class 1/Class E Type O/Supplemental Type
- 2 pieces: hooded jacket and bib pant, fold into storage pouch
- StarTech® reflective tape provides excellent visibility
- 100% waterproof polyester/PVC
- Taped and heat-sealed seams

Jacket features:
- Back vents
- Adjustable hem
- 2 large front cargo pockets
- Hood folds and zips into collar
- Full front zipper
- Drawstring with toggle on hem.

Bib Pant features:
- High-quality black elastic suspenders with non-corrosive plastic buckles
- Snap on hems to fit snug to boots.

PROD. NO.	MOD. NO.	Color	Sizes
V1080150U	**5598U**	Hi-Vis Orange	S–4XL
V1080160U	**5599U**	Hi-Vis Yellow/Green	S–4XL

V1080160U
V1080150U

Ask us about our custom embroidery program

PIONEER

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HI-VIS SAFETY RAINWEAR

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HI-VIS LIGHTWEIGHT SAFETY RAINWEAR

150D Lightweight Waterproof Safety Jacket with Detachable Hood

- ANSI/ISEA 107-15 Class 3 Type P and R
- 150 denier PU-coated polyester, 10 oz (350 GSM)
- 100% waterproof and windproof
- StarTech® reflective tape provides excellent visibility
- Taped and heat-sealed seams
- Extra liberal fit for working comfort

Jacket Features:
- Multiple front and back vents
- Fully mesh lined
- Adjustable wrists
- 2 large front cargo pockets
- Detachable and adjustable hood, folds into comfort fleece collar
- Full front zipper with storm placket

PROD. NO.	MOD. NO.	Color	Sizes
V1090150U	**5594U**	Hi-Vis Orange	S–4XL
V1090160U	**5596U**	Hi-Vis Yellow/Green	S–4XL

V1090160U
V1090150U

150D Lightweight Waterproof Safety Pants

Pant Features:
- ANSI/ISEA 107-15 Class E, Supplemental Type
- StarTech® reflective tape provides excellent visibility
- Elastic suspenders with quick-release clips
- Boot access zippers with adjustable ankles
- Fly access

PROD. NO.	MOD. NO.	Color	Sizes
V1090250U	**5595U**	Hi-Vis Orange	S–4XL
V1090260U	**5597U**	Hi-Vis Yellow/Green	S–4XL

V1090260U
V1090250U

Ask us about our custom embroidery program

HI-VIS SAFETY RAINWEAR

Ripstop Waterproof Safety Jacket

- ANSI/ISEA 107-15 Class 3 Type P and R
- 100% waterproof and windproof
- StarTech® reflective tape provides excellent visibility
- Double-stitched and heat-sealed seams
- Abrasion, puncture, and tear resistant
- Front and back ventilation panels
- Fully mesh and taffeta lined back
- Fleece-lined collar with chin guard
- 2 lower zip pockets, 2 lower inside pockets, and concealed zip cell phone pocket
- 2 radiophone clip straps
- Full front 2-way zipper with snap placket
- Elastic wrists with hook-and-loop closure
- 5400HU/5401HU (hood sold separately)

PROD. NO.	MOD. NO.	Color	Sizes
V1200251U	**5400AU**	Hi-Vis Orange	S–4XL
V1200261U	**5401AU**	Hi-Vis Yellow/Green	S–4XL

V1200261U
V1200251U

Hood for 300D Ripstop Waterproof Safety Jacket

- 300 denier durable ripstop polyester, PU coated
- Snap closure with drawstring
- Snaps for connecting to 300D ripstop jackets

PROD. NO.	MOD. NO.	Color	Sizes
V1200350U	**5400HU**	Hi-Vis Orange	One size
V1200360U	**5401HU**	Hi-Vis Yellow/Green	One size

V1200350U
V1200360U

300D Ripstop Waterproof Safety Bib Pant

- ANSI/ISEA 107-15 Class E, Supplemental Type
- 300 denier PU-coated ripstop polyester
- StarTech® reflective tape provides excellent visibility
- Double-stitched and heat-sealed seams
- Abrasion, puncture, and tear resistant
- 12" leg zippers with hook-and-loop plackets/adjustor straps
- Zippered closure inside bib pocket
- Zippered fly access
- Fully lined

PROD. NO.	MOD. NO.	Color	Sizes
V1200451U	**5404AU**	Hi-Vis Orange	S–4XL
V1200461U	**5405AU**	Hi-Vis Yellow/Green	S–4XL

V1200461U
V1200451U

HI-VIS 7-IN-1 SAFETY RAINWEAR

Hi-Vis 100% Waterproof 7-in-1 Parka

- ANSI/ISEA 107-15 Class 3 Type P and R
- Double-stitched StarTech® reflective tape provides excellent visibility
- 300 denier PU-coated oxford polyester
- 100% waterproof and windproof
- Taped and heat-sealed seams

Outer Jacket:
- Fully insulated, adjustable cuffs, 2 radiophone clip straps, 1 cell phone pocket , 4 inner pockets
- Detachable snap hood
- Full front zipper with snap storm placket
- 2 large front cargo pockets

Inner Jacket:
- Quilted lining
- Detachable sleeves
- Comfort collar
- 2 large front cargo pockets
- 2 inner pockets
- Reversible to black

-51°F to 23°F
ASTM F2732

PROD. NO.	MOD. NO.	Color	Sizes
V1120151U	**5020BBU**	Hi-Vis Orange	S–4XL
V1120161U	**5021BBU**	Hi-Vis Yellow/Green	S–4XL

V1120161U
V1120151U

100% Waterproof 7-in-1 Bomber Jacket

- ANSI/ISEA 107-15 Class 3 Type P and R
- Double-stitched StarTech® reflective tape provides excellent visibility
- 300 denier PU-coated oxford polyester
- 100% waterproof and windproof
- Taped and heat-sealed seams

Outer Jacket:
- Fully mesh lined, adjustable cuffs, 2 radiophone clip straps, 1 cell phone pocket , 4 inner pockets
- Detachable snap hood
- Full front zipper with snap storm placket
- 2 large front cargo pockets

Inner Jacket:
- Quilted lining
- Detachable sleeves
- Comfort collar
- 2 large front cargo pockets
- 2 inner pockets
- Reversible to black

-51°F to 23°F
ASTM F2732

PROD. NO.	MOD. NO.	Color	Sizes
V1120350U	**5022U**	Hi-Vis Orange	S–4XL
V1120360U	**5023U**	Hi-Vis Yellow/Green	S–4XL

V1120360U
V1120350U

Ask us about our custom embroidery program

HI-VIS INSULATED RAINWEAR

Hi-Vis 100% Waterproof Quilted Bib Pant

- ANSI/ISEA 107-15 Class E, Supplemental Type
- Double-stitched StarTech® reflective tape provides excellent visibility
- 300 denier PU-coated oxford polyester with 5.3 oz (180 GSM) warm quilted polyester lining
- 100% waterproof and windproof
- 20" boot access 2-way leg zippers with snap storm covers
- Double-stitched, taped and heat-sealed seams
- 2-way zipper with brass snap storm placket
- Premium adjustable elastic suspenders with quick-release clips
- Elastic waist
- 2 front slash cargo pockets
- Sealed inside chest pocket with pen slot
- Outside chest pocket with flap

-51°F to 23°F
ASTM F2732

PROD. NO.	MOD. NO.	Color	Sizes
V1120651U	**5040BBU**	Hi-Vis Orange	S–4XL
V1120661U	**5041BBU**	Hi-Vis Yellow/Green	S–4XL

V1120661U
V1120651U

V1130460U

V1040760U

V1040870U

HI-VIS INSULATED RAINWEAR

Hi-Vis Waterproof 2-in-1 Bomber Jacket

- Outer jacket ANSI/ISEA 107-15 Class 3 Type P and R
- PU-coated oxford polyester shell
- 100% windproof and waterproof
- StarTech® reflective tape provides excellent visibility
- Removable inner fleece liner
- Embroidery access zipper on the inside
- Detachable snap hood with pouch to conceal hood
- Comfort collar with fleece lining
- Elastic ribbed cuffs and waist
- Full front zipper
- 2 radiophone clip straps
- 2 large front zippered pockets
- 1 cell phone pocket
- Inside chest pocket
- Black bottom to conceal soiling

PROD. NO.	MOD. NO.	Color	Sizes
V1130460U	**5209U**	Hi-Vis Yellow/Green	S–4XL

SAFETY SASHES & GAITERS

Hi-Vis Breathable Mesh Gaiter

- ANSI/ISEA 107-15 Class E Supplemental Type
- Increases day and nighttime visibility while staying cool
- Elastic top and bottom for easy on/off
- StarTech® reflective tape provides excellent visibility
- 20" height
- Adjustable hook-and-loop straps
- 2-pack hangable format

PROD. NO.	MOD. NO.	Color	Sizes
V1040760U	**294U**	Hi-Vis Yellow/Green	One size

Hi-Vis Waterproof 300D Oxford PU Gaiter

- ANSI/ISEA 107-15 Class E Supplemental Type
- Elastic top and bottom with drawstring
- StarTech® reflective tape provides excellent visibility
- 20" height
- 2-pack hangable format

PROD. NO.	MOD. NO.	Color	Sizes
V1040870U	**295U**	Hi-Vis Yellow/Green	One size

Ask us about our custom embroidery program

SAFETY SASHES & GAITERS

Reflective Belt Vest

- Makes any plain garment more visible and safer
- Premium 1.5" elastic
- Adjustable elastic waist band and chest straps
- Quick-release waist buckle
- StarTech® reflective tape provides excellent visibility

PROD. NO.	MOD. NO.	Color	Sizes
V1041050U	**5496U**	Hi-Vis Orange	One size
V1041060U	**5497U**	Hi-Vis Yellow/Green	One size

V1041060U
V1041050U

Reflective Belt Vest Tear Away

- Makes any plain garment more visible and safer
- Premium 2" elastic
- Adjustable elastic waist band and chest straps fit all
- Quick-release waist buckle
- 4-point break-away
- StarTech® reflective tape provides excellent visibility

PROD. NO.	MOD. NO.	Color	Sizes
V1040850U	**5591U**	Hi-Vis Orange	One size
V1040860U	**5592U**	Hi-Vis Yellow/Green	One size

V1040860U
V1040850U

V2540310, V254031T
V2540350, V254035T

FLAME RESISTANT

Flame Resistant Tech Premium Soft Coveralls

- ANSI/ISEA 107-15 Class 1 Type O
- FR-Tech™ 88% premium cotton blended with 12% high-tenacity nylon, 7 oz (240 GSM)
- Material and all components meet CGSB 155.20-2017 and NFPA 2112-2018 certified to UL
- Thermal Protective Performance (TPP) Value 9
- 7702/7702T—CSA Z96-15 Class 3 Level 2 and Class 3 Level FR
- 7704/7704T—CSA Z96-15 Class 1 Level 2 and Class 1 Level FR
- Meets ASTM F1506-2018, NFPA 70E-18 and CSA Z462-18
- ATPV 10 cal/cm² (Arc Thermal Protective Value)
- ARC 2 Arc Rating Category
- Double-stitched StarTech® FR reflective tape provides excellent visibility
- Sewn with aramid inherently FR thread
- Flame resistance guaranteed for the life of the garment
- Radiophone clip strap
- 2-way FR brass zipper
- 7 storage pockets: 2 back, 2 chest, 2 side, 1 tool
- 2 pass-through pockets
- Adjustable wrists and ankles
- Superior flash fire and arc flash protection

PROD. NO.	MOD. NO.	Color	Waist Sizes
V2540350	7702	Orange	36–60
V254035T	7702T	Orange	40–60 Tall
V2540310	7704	Blue	36–60
V254031T	7704T	Blue	40–60 Tall

V2570450U
V2570470U

Flame Resistant Zip-Style Heavyweight Cotton Safety Hoodie

- ANSI/ISEA 107-15 Class 1 Type O
- CSA Z96-15 Class 1 Level 2 and Class 1 Level FR
- 100% FR treated preshrunk cotton, 12 oz (400 GSM)
- Material and all components meet CGSB 155.20, 2000
- Thermal Protective Performance (TPP) value with the spacer: 12 / Contact test: 10.5
- Meets ASTM F1506-10a, NFPA 70E and CSA Z462-15
- ATPV 23 cal/cm² (Arc Thermal Protective Value)
- ARC 2 Arc Rating Category
- Double-stitched StarTech® FR reflective tape X on the back provides excellent visibility
- Sewn with inherently FR thread
- 2 front slash pocket
- FR brass non-locking zipper
- Tough double-stitched seams
- Liberal sizing
- Detachable snap hood

PROD. NO.	MOD. NO.	Color	Sizes
V2570450U	338SFU	Orange	S–5XL
V2570470U	337SFU	Black	S–5XL

Ask us about our custom embroidery program

FLAME RESISTANT

FLAME-GARD™ᴹᶜ

Flame Resistant Hi-Vis Vest

- ANSI/ISEA 107-15 Class 2 Type P and R
- FR treated polyester mesh
- Meets EN ISO 14116 Index 1
- Must be worn over an FR sleeved garment
- 5-point tear-away
- StarTech® FR reflective tape provides excellent visibility
- D-ring access slot
- Adjustable 1 size up at front

PROD. NO.	MOD. NO.	Color	Double Sizes
V2510850U	**6914AU**	Hi-Vis Orange	S/M–4/5XL
V2510860U	**6916AU**	Hi-Vis Yellow/Green	S/M–4/5XL

V2510860U
V2510850U

NFPA (National Fire Protection Association) 2112-2018—Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire

- NFPA 2112-2018 requires 3rd party certification through UL.
- Tests performed under NFPA 2112:
    1. **Heat transfer performance**—predict burn injury (2nd or 3rd degree burn).
    2. **Flame resistance**—ASTM D6413 as received and after 100 wash cycles. Tested for 3 secs.
    3. **Thermal shrinkage resistance/Heat resistance test**—Oven test at 260° C.
    4. **Manikin testing**—ASTM F1930—Manikin has sensors and is subjected to 84KW/m^2 for flame for 3 secs. to verify if 2nd or 3rd degree burns are recorded.
    5. **Thread melting resistance**—260° C of heat is applied to verify if thread melts.
    6. **Other tests included:** label legibility, fabric weight, tensile strength, tear strength, material burst strength, laundering shrinkage, colorfastness, seam efficiency.

Electric Arc Standards

Test Method:
- **ASTM F1506-2018**—Standard Performance Specification for Flame Resistant and Arc Rated Textile Materials for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards.

Standards:
- **NFPA 70E-2018**—Standard for Electrical Safety in the Workplace.

What is ARC Flash?

When an electric current passes through air between underground conductors or between underground conductors and grounded conductors, temperatures can reach 20,000° C (35,000° F).

Exposure to these extreme temperatures burns the skin directly and ignites clothing, which adds to the burn injury.

The majority of hospital admissions due to electric accidents are from arc flash burns, not from shocks.

ASTM F1506-2018

- Both NFPA 70E and CSA Z462 define the following categories for ARC rated clothing.
- **ATPV** (Arc thermal protective value)—point at which 2nd degree burn is registered on the sensor and fabric is still intact.
- **EbT** (Break-open threshold)—point at which 2nd degree burn is registered on the sensor and fabric has broken/formed a hole.
- Minimum ARC rating required 4 Cal/cm^2
- ARC 1—4 Cal/cm^2 to 7.9 Cal/cm^2
- ARC 2—8 Cal/cm^2 to 24.9 Cal/cm^2
- ARC 3—25 Cal/cm^2 to 39.9 Cal/cm^2
- ARC 4—40 Cal/cm^2 and up.

Tests in this standards go way beyond testing for ARC rating:
- Breaking load test—Grab test
- Tear resistance
- Seam slippage
- Colorfastness—Laundering/ Dry Cleaning—3 cycles of washing,
- Dimensional Change—Max 3%
- Flammability—Char length needs to be below 150mm.
- Before and after 25 washes, Bursting strength, Arc Rating

WARRANTY

Garment and Safety Gear

Pioneer warrants all garments to be free of defects in materials and workmanship under the normal use for which the product is intended. Normally, a garment defect of manufacture will show up in the first two months of use.

This warranty is limited to product failure as a result of seam separation, broken snaps or zippers, material delaminating, or any defect in material or workmanship that affects the performance of the garment.

Excluded from this warranty are products that have been affected by cuts or punctures, disfigured from continued wear or use, and products that have been exposed to solvents or excessive heat which may degrade their performance and garments that have not been maintained as per wash care instructions on the garment.

Warranty claims will only be provided for those products that have been made available for inspection by Pioneer. Any warranty claim on garments that have been purchased over 60 days ago will have to be accompanied by pictures and/ or defective garment itself for inspection. To maintain our health and safety standards, all products returned for inspection must be free of all removable debris. Any products returned that do not meet the above conditions will be returned to the customer at their expense.

Pioneer shall not be liable for indirect, special, incidental, or consequential damage or penalties and does not assume liability of purchaser or others for injury to persons or property.

For a warranty claim on a Pioneer garment, please contact your local sales or customer service representative.

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PEAKWORKS®

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