CORE OVERLAP VEST AND SKIRT WITH BACK SUPPORT

CUSTOM LEAD APRON

ABOUT US

Phillips Safety is a recognized leader in radiation protection, designing and manufacturing high-quality radiation safety products and specialized PPE. Family-owned and operated for over 100 years, we are known for precision manufacturing, technical expertise, and an unwavering commitment to protecting professionals working in high-risk environments.

Our leadership in radiation safety began with protective eyewear and has expanded to a comprehensive portfolio of radiation apparel, barriers, shielding drapes, and custom solutions used in medical, industrial, research, and veterinary settings. Today, Phillips Safety products are trusted in fluoroscopy suites, cath labs, operating rooms, radiology departments, and interventional environments worldwide.

At the core of our radiation apparel is Axion Core™ technology—advanced lead-free and low-lead composite materials engineered to provide dependable radiation attenuation with reduced weight and improved comfort. Available in Axion Core 1000, 2000, and 3000, these core options are designed to balance protection, durability, and ergonomics to meet the needs of a wide range of users.

All Phillips Safety products are manufactured to meet applicable safety and regulatory standards, including Regulation (EU) 2016/425, and are tested in accordance with EN 61331 standards. Through vertical integration and in-house expertise, Phillips Safety continues to deliver reliable, innovative radiation protection solutions professionals can trust.

PHILLIPS SAFETY LEAD APRONS

CONTENT

01. Phillips Safety Lead Aprons
Learn about our core materials, Axion Core™ technology, QuickShip options, and more.

02. Lead Apron Style
Explore our apron style, sizing options, and measurement guidance.

03. Fabric Materials, Colors & Swatches
Discover available fabrics, colors, patterns, and customization options.

OUR LEAD APRONS

At Phillips Safety, our lead aprons are meticulously crafted in the USA with the wearer's comfort, protection, and style in mind, providing an ideal balance of weight and functionality.

Our aprons use top-quality barrier material that excels in both hygiene and comfort, making it the best choice on the market. This advanced barrier provides additional protection, as the inner and outer materials prevent pathogens, liquids, and solid particles from reaching the body.

While our QuickShip aprons ship within 24 hours, custom aprons are available and typically ship in 2-5 business days. Custom aprons can be tailored to your exact measurements and preferences, providing an ideal fit and optimal protection.

QuickShip Aprons and Garments

Phillips Safety offers a line of QuickShip aprons and garments. These products come in 0.5mm Pb Lead Equivalency in our Lightweight Lead and Axion Core™ 2000 cores. Standard colors in both Nylon and Ripstop fabrics allow for a shipping time within 24 hours.

PHILLIPS SAFETY LEAD APRONS

Axion Core Lead-Free Radiation Aprons and Garments

Phillips Safety introduces Axion Core™, our next-generation line of lead-free radiation aprons and garments.

By leveraging new advancements in manufacturing technology, Axion Core delivers the lightest weight core on the market today—without compromising shielding performance or safety. We have developed three distinct core options—Axion Core 1000, 2000, and 3000—each engineered with a unique blend of bismuth, antimony, and rare earth elements.

These innovative lead-free solutions vary in weight to meet different user needs but never sacrifice protection, giving medical professionals the perfect balance of comfort, durability, and performance while ensuring the highest safety standards in radiation shielding.

Axion Core™ 1000

The most economical lead-free core in our lineup, Axion Core 1000 is also the heaviest of our non-lead options. Designed for facilities prioritizing cost-efficiency without sacrificing safety, it offers reliable protection at a value price point. At roughly 5% lighter than traditional lightweight lead cores on the market, it delivers measurable weight reduction while maintaining full compliance with radiation shielding standards.

Axion Core™ 2000

Our most popular core, Axion Core 2000 delivers a significant weight reduction compared to both traditional lead aprons and the Axion Core 1000. Offering the ideal balance of performance and value, this core is price-effective while providing the comfort needed for those who wear aprons for extended periods of time.

Axion Core™ 3000

The lightest core in our lineup, Axion Core 3000 represents a true engineering achievement. At 15-20% lighter than Axion Core 2000, this is one of the lightest lead-free cores on the market today, if not the lightest. This material allows us to deliver the lightest apron available in the Phillips Safety line, giving medical professionals the most comfort during long procedures. For those seeking the perfect combination of lightweight design and long-term durability, Axion Core 3000 is simply unmatched.

Lightweight Lead

Our Lightweight Lead Core is a specially formulated material engineered to reduce weight compared to standard, traditional lead cores—making it easier and more comfortable to wear without sacrificing dependable protection. While it's not as light as our Axion Core lead-free options, this formulation provides an excellent balance of affordability, performance, and reliability. A great price point and proven shielding performance make it a trusted choice for facilities seeking consistent protection with a lighter feel than conventional lead aprons.

CORE OVERLAP VEST AND SKIRT
WITH BACK SUPPORT

RA-VSA-CO-BACK

The Core Overlap Vest and Skirt Apron with Back Support is a comfortable two-piece apron designed to reduce radiation exposure while minimizing fatigue during long procedures. It consists of a vest and a skirt that together provide anterior and posterior torso protection from the shoulders to the thighs.

An integrated, adjustable elastic relief belt transfers up to 70% of the apron's weight from the shoulders to the hips, providing active lumbar support for enhanced all-day comfort. For a secure, adjustable fit, both the vest and skirt feature front buckle closures that allow each piece to be fastened and adjusted independently.

Designed with a 3/4 overlap front, the apron offers either 0.35 mm Pb or 0.50 mm Pb lead equivalency in the front while doubling protection in the overlap area without adding unnecessary weight. The permanent 0.25 mm Pb back panel provides reliable posterior protection with a lighter overall design. In addition, the skirt features a specialized anti-slip lining to help keep it securely in place throughout the day.

Suitable for both men and women, the Core Overlap Vest and Skirt Apron with Back Support is available in four core materials: Lightweight Lead, Axion Core™ 1000, Axion Core™ 2000, and Axion Core™ 3000. Customers can also choose from four outer materials – Nylon, Ripstop, Polytron, or PVC EasyClean – along with a variety of colors and binding options. The apron is available in seven sizes ranging from XS to 2XL and complies with the ASTM F3094-14 testing standard.

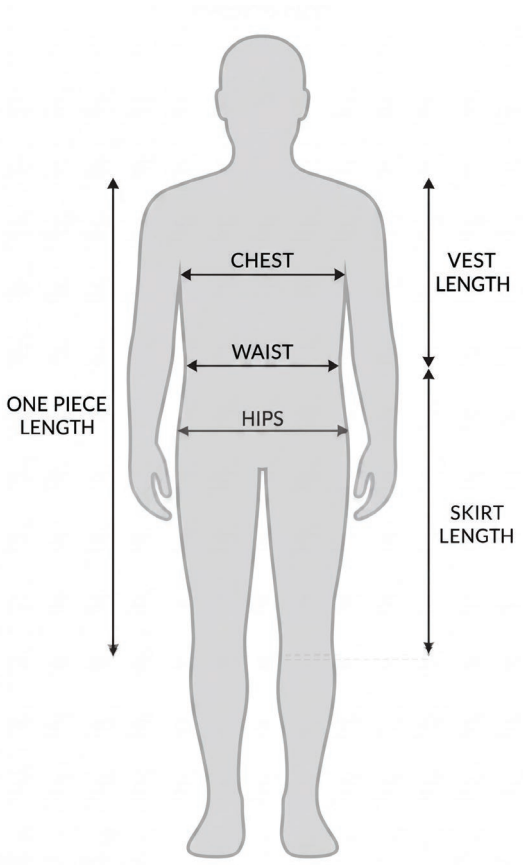
2-Year Warranty – Radiation protection apparel is covered against manufacturing defects.

AVAILABLE OPTIONS

CORE MATERIAL	LEAD EQUIVALENCY	OUTER FABRIC
Axion Core™ 1000, 2000, 3000, Lightweight Lead	0.35mm Pb, 0.50mm Pb 0.25mm Pb back panel	Nylon, Ripstop, Polytron, PVC EasyClean

CORE OVERLAP VEST AND SKIRT WITH BACK SUPPORT

HOW TO MEASURE



GENERAL MEASUREMENTS

1. CHEST
Measure the circumference under your arms around the widest part of your chest.

2. WAIST
Measure the circumference around the narrowest part of your waist.

3. HIPS
Measure the circumference around the widest part of your hips, keeping your feet close together.

TWO-PIECE APRON

1. VEST
Measure the length from the highest point of your trapezius to 2" below your waist.

2. SKIRT
Measure the length from your waist to the top of your knee.

SIZING CHARTS

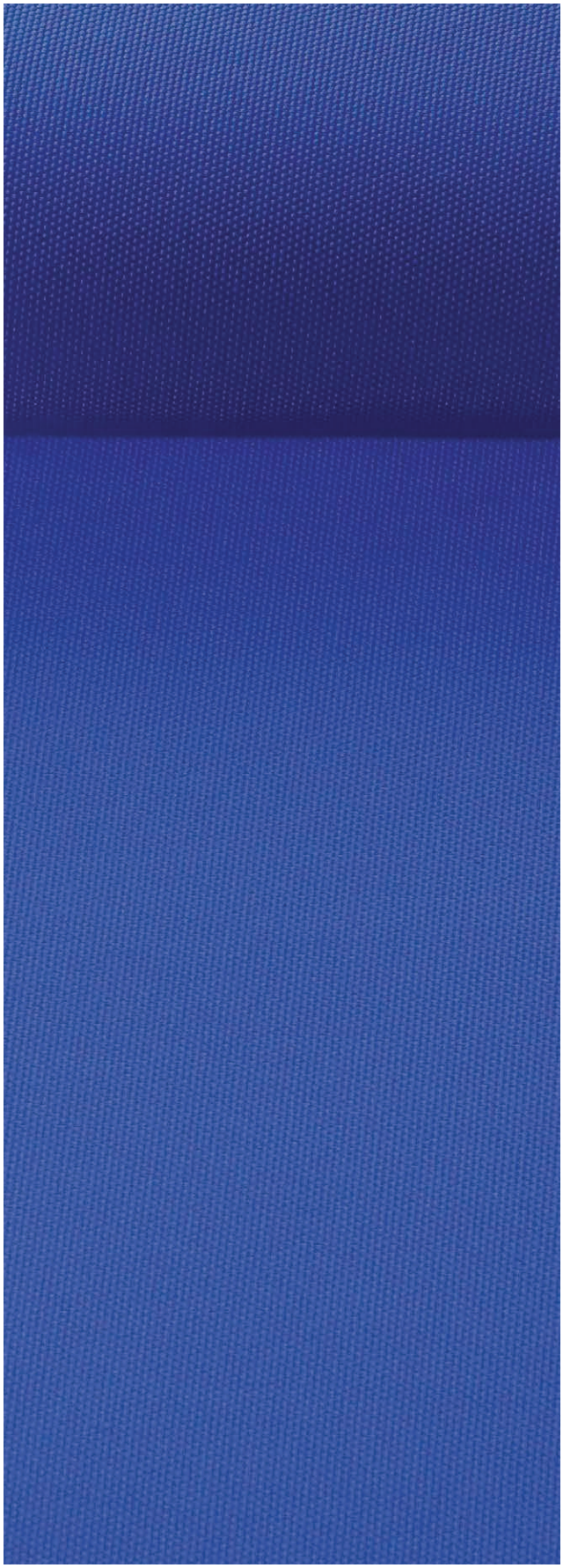
	MALE VEST		FEMALE VEST		UNISEX SKIRT		
SIZE	Chest Size	Length	Chest Size	Length	Waist Size	Hip Size	Length
XS	34"-36"	22"	32"-34"	20"	26"-27"	32"-33"	19"
Small	36"-38"	23"	34"-36"	21"	28"-29"	34"-35"	19"
Medium	38"-40"	24"	36"-38"	22"	30"-32"	36"-38"	20"
Large	40"-43"	25"	38"-40"	23"	33"-35"	39"-41"	21"
XL	43"-46"	26"	40"-43"	24"	36"-38"	42"-44"	22"
2XL	46"-50"	27"	43"-46"	25"	39"-41"	45"-47"	22"
3XL	50"-54"	28"	46"-50"	26"	42"-45"	48"-49"	22"

Please note: Sizes below XS and above 3XL can be accommodated with custom sizing.

FABRIC MATERIALS, COLORS & SWATCHES

NYLON

A classic lightweight fabric, Nylon is a synthethic material with high tenacity and excellent abrasion resistance. Nylon is also highly resilient, has good specific strength and provides high resistence to insects, fungi, molds, mildew, rot, and many chemicals.



EXTREMELY RESISTANT

LIGHTWEIGHT

STRONG & DURABLE

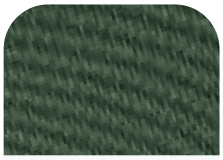
MULTIPLE OPTIONS

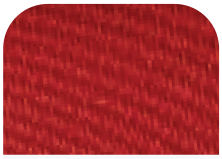
NYLON

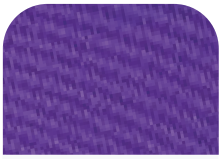
AVAILABLE COLORS & PATTERNS

ROYAL BLUE

BLACK


HUNTER GREEN


RED


PURPLE

PINK

BURGUNDY

CHARCOAL

DARK BROWN

FLUORESCENT ORANGE

GOLD

NAVY BLUE

TURQUOISE

MEDIUM BLUE

SILVER

KELLY GREEN

TEAL

COLOR FOSSILS

FISH BONES

SHARKS

FLAMINGO

ORANGE HIBISCUS

HAWAIIAN FLOWERS

TROPICAL AVOCADO

PURPLE PLAID

BINDING AVAILABLE

BLACK | ROYAL BLUE | HUNTER GREEN | RED | PURPLE | PINK | BURGUNDY | CHARCOAL | DARK BROWN

FLUORESCENT ORANGE | GOLD | NAVY BLUE | TURQUOISE | MEDIUM BLUE | SILVER | KELLY GREEN | TEAL

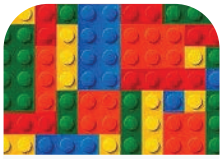
NYLON

AVAILABLE COLORS & PATTERNS

HEART GRAFFITI

PINK PAISLEY

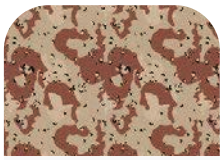
CACTUS


DOT BLOCKS

DIGI CAMO WOODLAND GREEN

NAVY CAMO

MD CAMO


DESERT CAMO

PINK CAMO

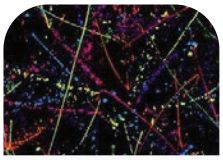
DIGI CAMO GRAY/BLACK

CHEETAH

ANIMAL BLUE PRINT

LEOPARD PINK

WHITE DOTS ON PINK


PAINT SPLATTER

SUGAR SKULLS

SKULLS

OCEAN

SUPERHERO KIDS

DENTAL

CATS

DOGS

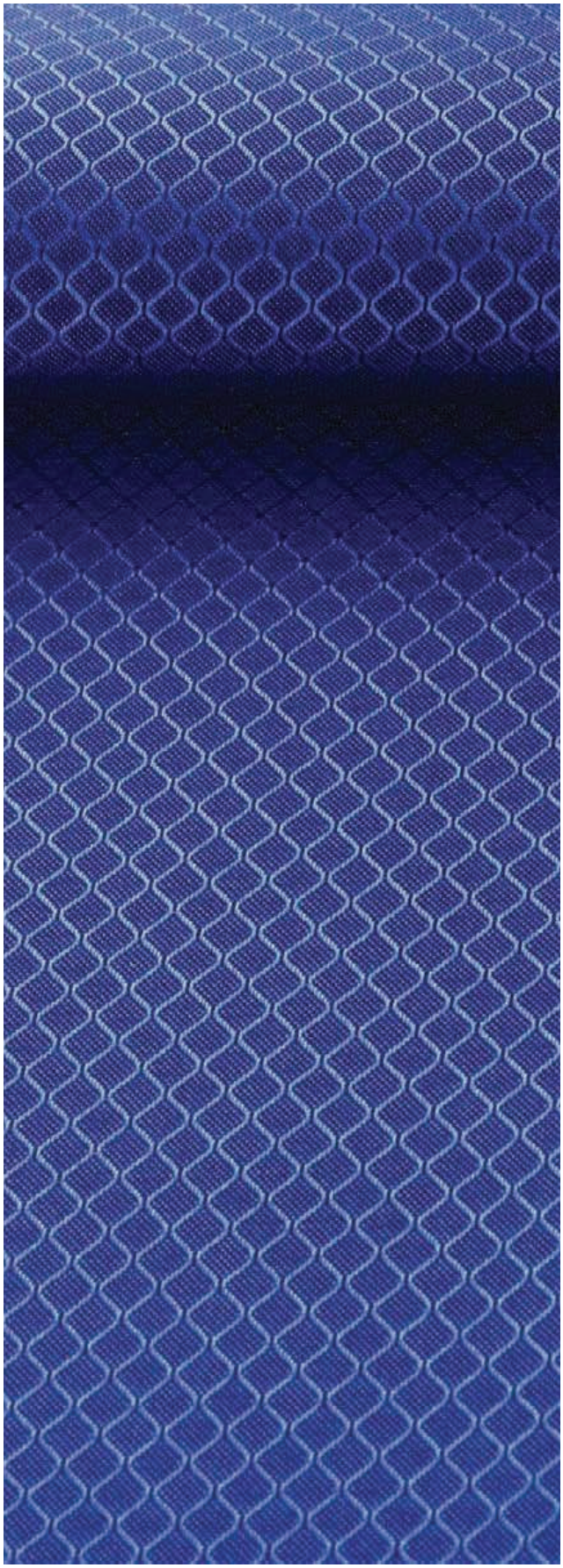
BINDING AVAILABLE

BLACK | ROYAL BLUE | HUNTER GREEN | RED | PURPLE | PINK | BURGUNDY | CHARCOAL | DARK BROWN

FLUORESCENT ORANGE | GOLD | NAVY BLUE | TURQUOISE | MEDIUM BLUE | SILVER | KELLY GREEN | TEAL

RIPSTOP

Ripstop is a woven fabric that uses a reinforcing technique which makes it more resistant to tearing and ripping. Often made of Nylon, Ripstop is a lightweight material with interwoven ripstop reinforcement threads in a crosshatch pattern, making it look like diamong stitching.



EXTREMELY RESISTANT

LIGHTWEIGHT

STRONG & DURABLE

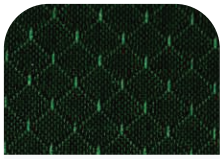
DIAMOND STITCHING

RIPSTOP

AVAILABLE COLORS & PATTERNS

ROYAL BLUE

BLACK


KELLY GREEN

HUNTER GREEN

RED

CINNAMON

TAN

LIGHT GRAY

PURPLE

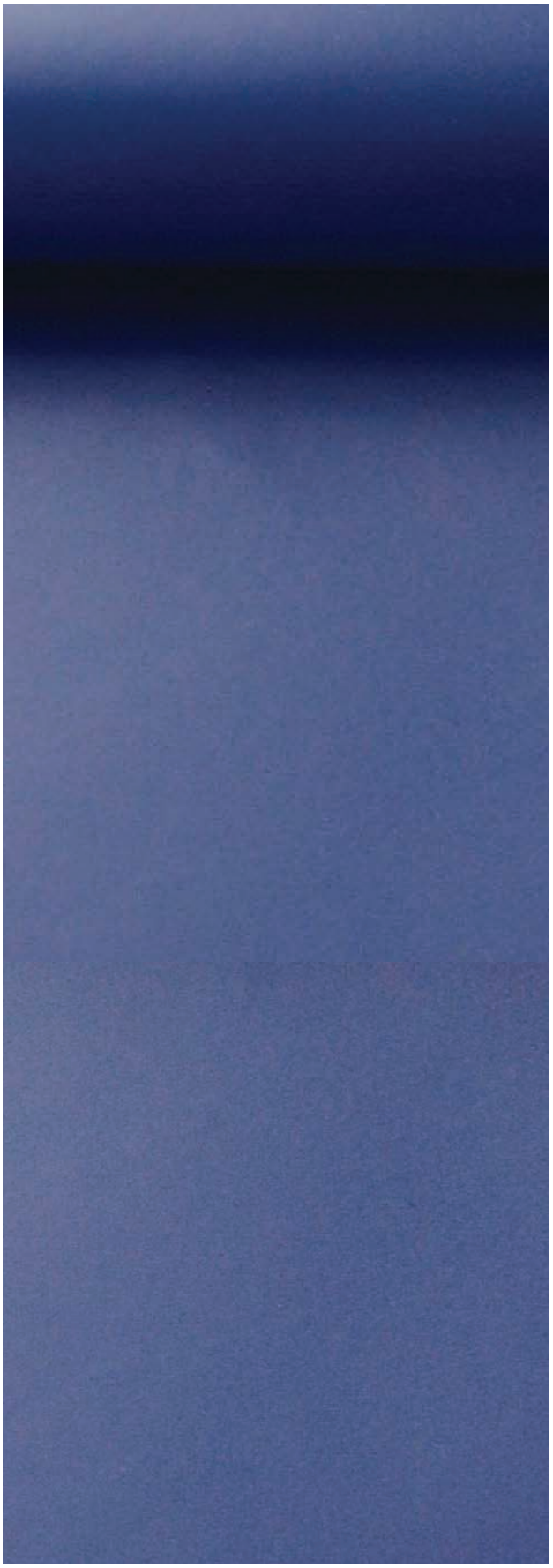
BINDING AVAILABLE

BLACK, ROYAL BLUE, HUNTER GREEN, RED, PURPLE, PINK, BURGUNDY, CHARCOAL, DARK BROWN

FLUORESCENT ORANGE, GOLD, NAVY BLUE, TURQUOISE, MEDIUM BLUE, SILVER, KELLY GREEN, TEAL

PVC EASYCLEAN

PVC EasyClean is a thick fabric that provides a leather-like touch. Made of an ultra resistant material, it is – as the name suggests – very easy to clean: with a quick wipe it is clean and ready to go.



- EASY CLEAN
- LIGHTWEIGHT
- STRONG & DURABLE
- EXTREMELY RESISTANT
- LEATHER TOUCH

PVC EASYCLEAN

AVAILABLE COLORS & PATTERNS

PVC FABRIC IS BEING PHASED OUT

Color availability is limited
and subject to confirmation

CYAN

PINK

PURPLE

RED

PIRATE

CAMO

PLANETS

LEOPARD

BINDING AVAILABLE

BLACK, ROYAL BLUE, HUNTER GREEN, RED, PURPLE, PINK, BURGUNDY, CHARCOAL, DARK BROWN

FLUORESCENT ORANGE, GOLD, NAVY BLUE, TURQUOISE, MEDIUM BLUE, SILVER, KELLY GREEN, TEAL

POLYTRON

Polytron is a smooth fabric with a soft touch. Manufactured in the U.S., it has flexible and comfortable qualities due to the Polypropylene it is made of. This lightweight materials is also inherently stain resistant, PFC chemical free, and bleach cleanable.

- FLEXIBLE & COMFORTABLE
- LIGHTWEIGHT
- STRONG & DURABLE
- EXTREMELY RESISTANT
- SOFT TOUCH

POLYTRON

AVAILABLE COLORS & PATTERNS

ROYAL BLUE

BLACK

GREEN

PURPLE

RED

PINK

GRAY

LIGHT BLUE

MEDIUM BLUE

NAVY BLUE

BINDING AVAILABLE

BLACK, ROYAL BLUE, HUNTER GREEN, RED, PURPLE, PINK, BURGUNDY, CHARCOAL, DARK BROWN

FLUORESCENT ORANGE, GOLD, NAVY BLUE, TURQUOISE, MEDIUM BLUE, SILVER, KELLY GREEN, TEAL

EMBROIDERY

If you want a personalized lead apron, at Phillips Safety it is possible to add embroidered logos or text over the patch pocket. You can customize the text as you want it, as long as it features a maximum of 25 characters.

Even better, you can choose from two different fonts: the classic sans-serif typeface Arial, or the script typeface Parkside. In addition, the text can be embroidered in any of the colors below.

FONT: ARIAL

FONT: PARKSIDE

COLORS AVAILABLE

BLACK | BROWN | BURGUNDY | CHARCOAL | FUCHSIA | GOLD | GRAY | HUNTER GREEN | KELLY GREEN | NAVY

ORANGE | PINK | PURPLE | RED | ROYAL BLUE | SKY BLUE | TAN | TEAL | WHITE | YELLOW

AVAILABLE FOR LEAD APRONS AND THYROID SHIELDS