



# INSTRUCTIONS FOR USE (IFU)

## PROGUARD LEAD GARMENTS & ACCESSORIES

Revised 2.17.2026

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Thank you for purchasing one of our Proguard lead garments. These garments will provide radiation protection for several years if maintained and used properly. Recommendations and limitations are provided below. If you have any questions, please contact us directly or your authorized dealer.

Before using, please read the user information provided in this notice.

***Enjoy the Protech difference!***

### I. PRODUCT DETAILS

#### **Product Description:**

Lead & lead-free composite garments such as frontal aprons, vests, skirts, wraps, thyroid collars, and many other unique styles all manufactured using fabric layers (nylon, polyester, other fabrics) stitched and binded with x-ray protective thermoplastic layers as defined below.

#### **Product Intended Use and Limits of Use:**

Lead Garments are worn by healthcare professionals to protect them from the harmful effects of x-ray (ionizing) radiation during medical & other procedures requiring the use of x-ray/fluoroscopy. Lead garments are usually worn in combination with other products to provide complete protection from x-ray. You must ensure that your lead garment fits correctly and is properly worn for effective protection. Lead Garments have not been tested for biocompatibility and should be worn over appropriate medical attire (scrubs).

Proguard garments provide personal protection against x-ray (photon radiation) up to 150kV, with beam HVL up to 4.5mm Al. Above these kV/HVL values, lead equivalency protection values (mm Pb) may be less. Standard lead retains its mm Pb values at all kV levels.

Lead equivalence (mm Pb) is determined in accordance with IEC 61331-1:2014 and IEC 61331-3:2014 using modified broad beam geometry (mBBG), and ASTM F2547-18 using narrow beam geometry.

**WARNING:** Proguard garments do not adequately protect against gamma radiation and should not be used in nuclear medicine. Most conditions of gamma exposure invalidate the lead equivalent values provided. Cloudcore™ 0.125mm core material is only permitted for use in conjunction with approved barrier systems. Contact us for a list of approved systems.

#### **Warranty Policy**

Protech's **Lead Garments** are warranted to be free of defects in materials and workmanship to the original purchaser for **two years**. If a defect appears, a return request must be made with Protech or authorized reseller. Protech will issue an RMA form to be completed and submitted along with the return of merchandise. All returns must be accompanied by an RMA with valid RMA #. All returns will be evaluated and examined.

Protech will either repair or replace the defective item or part without charge to the purchaser. This warranty is void when the product has been tampered with, when repairs or attempted repairs have been made by unauthorized persons, or when the item has been subject to misuse, abuse or damage in transit.

## II. PRODUCT RECOMMENDATIONS AND LIMITATIONS OF USE

The recommendations given below are generalized and may be subject to local statutory or safety use procedures mandated within your facility. If in doubt about proper usage or garment protection values, consult your Radiation Safety Department Officer, qualified radiologist or radiation physicist. Professional advice will minimize total dose based on equipment, kV, filtration, procedure, exposure time, distance, scatter and other potential factors. At a minimum, it is proper practice to wear at least one personal dosimeter inside the garment at chest level. Preferred practice may require an additional, abdominal dosimeter (worn inside), and/or an additional, chest dosimeter (worn outside - usually on the chest pocket).

### Frontal Protection Styles

#### RECOMMENDED USE & LIMITS

MODEL	STYLE	FRONT LE	BACK LE
AP - BR	Back Relief Apron	0.125/0.25/0.35/0.50	0
AP - BA	Buckle Apron	0.125/0.25/0.35/0.50	0
AP - FB	Flexback Apron	0.125/0.25/0.35/0.50	0
AP - SD	Surgical Drop Apron	0.125/0.25/0.35/0.50	0
AP - TIE	Tie Apron	0.125/0.25/0.35/0.50	0
AP - VA	Velcro Adjustable Apron	0.125/0.25/0.35/0.50	0
AP - UA	Urology Apron	0.125/0.25/0.35/0.50	0

X-ray garments for FRONT protection only. For use in general radiology, x-ray, operating rooms, etc. where radiation comes from the front. NOT for nuclear/gamma use.

### Full Protection Styles

#### RECOMMENDED USE & LIMITS

MODEL	STYLE	FRONT LE	BACK LE
AP - SKIRT	Apron Skirt	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - SKEZ	EZ Skirt	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VEZ	EZ Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VFO	Full Overlap Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VFW	Full Wrap Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - TVEST	Tri-Tab Apron Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VQ	Essential Apron Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - V	Balance Apron Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VFBQ	Essential Flexback Apron Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VFB	Balance Flexback Apron Vest	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - VW	Versa Wrap Apron	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - WAQ	Essential Wraparound Back Relief	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - WABR	Balance Wraparound Back Relief	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - WAFO	Full Overlap Wraparound B. R.	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP - WAFB	Wrap Around Flexback Apron	0.125/0.25/0.35/0.50	0.125/0.25/0.35/0.50
AP-MAWA	Maternity Wrap Flexback	0.35/0.50	0.35/0.50
AP - MA	Maternity Apron	0.35/0.50	0.35/0.50
AP - DA	Dental Apron	0.30/0.35/0.50	0
AP - DC	Dental Cape	0.30/0.35/0.50	0
AP - DP	Dental Panoramic Poncho	0.30/0.35/0.50	0.30/0.35/0.50

X-ray garments for FRONT AND BACK protection. For use in x-ray, operating rooms, angio, cardiac cath labs, etc. especially for long duration procedures. NOT for nuclear/gamma use.

Please note, vest and skirt garment styles must be worn together. Avoid direct beam exposure wherever possible.

## II. PRODUCT RECOMMENDATIONS AND LIMITATIONS OF USE

The recommendations given below are generalized and may be subject to local statutory or safety use procedures mandated within your facility. If in doubt about proper usage or garment protection values, consult your Radiation Safety Department Officer, qualified radiologist or radiation physicist. Professional advice will minimize total dose based on equipment, kV, filtration, procedure, exposure time, distance, scatter and other potential factors. At a minimum, it is proper practice to wear at least one personal dosimeter inside the garment at chest level. Preferred practice may require an additional, abdominal dosimeter (worn inside), and/or an additional, chest dosimeter (worn outside - usually on the chest pocket).

### Radiation Protection Accessories

MODEL	STYLE	FRONT LE	BACK LE	RECOMMENDED USE & LIMITS
AP - TCO	Original Thyroid Collar	0.125/0.25/0.35/0.50	0	Collars for thyroid protection.
AP - TCS	Standard Thyroid Collar	0.125/0.25/0.35/0.50	0	
AP - TCG	ProGuard Thyroid Collar	0.125/0.25/0.35/0.50	0	
AP - TCP	Pediatric Thyroid Collar	0.125/0.25/0.35/0.50	0	
AP - TCM	Mammography Thyroid Collar	0.125/0.25/0.35/0.50	0	
AP - TCB	Bib Thyroid Collar	0.125/0.25/0.35/0.50	0	
AP - TCV	Visor Thyroid Collar	0.125/0.25/0.35/0.50	N/A	
AP - PGCAP	ProGuard Smart Cap	0.25/0.35/0.50	N/A	Head protection.
AP - PCAP	Page Cap	0.25/0.35/0.50	N/A	
AP - CAP	Head Cap	0.25/0.35/0.50	N/A	
AP - STOLE	Breast Stole	0.25/0.35/0.50	0	Reproductive protection for x-ray. To be used with other forms of protection to achieve a 1.00mm Pb total.
AP - GONAD	Gonad Shield	0.25/0.35/0.50	0	
AP - GONSET	Gonad/Ovarian Shield Set	0.25/0.35/0.50	0	
AP - HA	Half Apron	0.25/0.35/0.50	0	
AP - MATE	Chest Mate	0.50	N/A	
AP - SLV	Apron Sleeve	0.25/0.35/0.50	N/A	Upper arm shield for apron.
AP - SG	Shin Guards	0.25/0.35/0.50	N/A	Lower leg coverage.
AP - FOOT	Foot Covers	0.25/0.35/0.50	N/A	Lower extremity coverage.
AP-ANGIOMIT	Angio Positioning Mitt	0.25/0.35/0.50	N/A	Hand coverage.
AP-SLITMIT-R	Slit Mitt (right)	0.25/0.35/0.50	N/A	
AP-SLITMIT-L	Slit Mitt (left)	0.25/0.35/0.50	N/A	

### III. PROTECTION CLASS & COMPLIANCE STANDARDS

**IEC 61331-1:2014: (EU)** Protective devices against Diagnostic Medical X-ray radiation. (Determination of attenuation properties of material)

**IEC 61331-3:2014: (EU)** Protective devices against diagnostic medical X-radiation Part 3: Protective clothing, Eyewear and Protective Patient shields.

**ASTM 2547-18: (USA)** Standard test method for determining the attenuation properties in a primary x-ray beam of materials used against radiation.

#### Protection requirements: IEC 61331-1:2014 and IEC 61331-3:2014 Standards

Product Type	Minimum Lead Equivalence (Pb)	kV Class Range
Light Duty (L) & Light Duty Closed (LC) Aprons	Not less than 0.25mm Pb LE	60 - 110 or 150kV
Heavy Duty (H) & Heavy Duty Closed (HC) Aprons	Not less than 0.35mm Pb LE	60 - 110 or 150kV
Thyroid Collars (TC)	Not less than 0.35mm Pb LE	60 - 110 or 150kV
Lead Accessories (Light Duty) (LA)	Not less than 0.25mm Pb LE	60 - 110 or 150kV
Lead Accessories (Heavy Duty) (LAD)	Not less than 0.35mm Pb LE	60 - 110 or 150kV
ScatterGuard Drapes (Light Duty) (SGL)	N/A*	60 - 110 or 150kV
ScatterGuard Drapes (Heavy Duty) (SGH)	N/A*	60 - 110 or 150kV
Protective Mittens (PM)	Not less than 0.25mm Pb LE	60 - 110 or 150kV
Protective Gonad Aprons (GA)	Not less than 0.50mm Pb LE	60 - 110 or 150kV
Scrotum Shields (RP)	Not less than 1.00mm Pb LE	60 - 110 or 150kV
Ovary Shields (RP)	Not less than 1.00mm Pb LE	60 - 110 or 150kV
Shadow Shields (SS)	Not less than 1.00mm Pb LE	60 - 110 or 150kV
Dental Aprons (DA)	Not less than 0.35mm Pb LE	70kV

\*Products meet the IEC 61331-1:2014 testing standard (IEC 61331-3:2014 not applicable to these product types). Attenuation/Lead equivalence (mm Pb) is achieved by testing to IEC 61331-1:2014 standard, mBBG method.

- The lead equivalence of **light-duty (L)** protective aprons shall be not less than 0.25 mm Pb over their entire area.
- The lead equivalence of **heavy-duty (H)** protective aprons shall be not less than 0.35 mm Pb for the front section, and not less than 0.25 mm Pb for the remaining parts.
- The lead equivalence of **light-duty closed (LC)** protective aprons shall be not less than 0.25 mm Pb over their entire area.
- The lead equivalence of **heavy-duty closed (HC)** protective aprons shall be not less than 0.35 mm Pb for the front section, and not less than 0.25 mm Pb for the remaining parts.

#### Product Type Legend

Front Protection	L, H	Thyroid Collar	TC	Protective Mitts	PM
Full Protection	LC, HC	Gonad Aprons	GA	Other*	OT
Dental Aprons	DA	Ovary/Scrotum Shields	RP		

\* This category is not an official designation recognized under IEC 61331-1:2014 or IEC 61331-3:2014. It has been introduced for internal classification and organizational purposes only.

**WARNING: Do not modify garment as this may affect protection and will invalidate warranty.**

## Frontal Protection Garments Coverage

The following Proguard Apron and accessory models provide **ONLY FRONT** protection, with lead equivalence as marked on the label (0.25, 0.35, or 0.50mm Pb). These styles have stated protection in a single front panel.

L,H	AP - BR	Back Relief Apron	L,H	AP - SD	Surgical Drop Apron
L,H	AP - BA	Buckle Apron	L,H	AP - TIE	Tie Apron
L,H	AP - FB	Flexback Apron	L,H	AP - VA	Velcro Adjustable Apron
L,H	AP - UA	Urology Apron			

## Full Protection Garments

The following Proguard Apron and accessory models provide **FRONT AND BACK** protection, with front/back lead equivalence combinations as marked on the label (0.25, 0.35, or 0.50mm Pb).

**IMPORTANT: full coverage apron designs are worn differently to achieve stated protection**

LC, HC	AP - V	Balance Apron Vest	These styles have the stated lead equivalence (mm Pb) in EACH separate front panel and are designed to overlap only 7 - 15cm at the center, using the "velcro" closure (lead equivalence/ protection is doubled at overlap - ex 1.00mm Pb).
LC, HC	AP - VFB	Balance Flexback Apron Vest	
LC, HC	AP - WABR	Balance Wraparound Back Relief	

LC, HC	AP - SKIRT	Apron Skirt	These styles have half (50%) the stated lead equivalence (mm Pb) in EACH front panel and achieve stated protection where panels overlap.
LC, HC	AP - SKEZ	EZ Skirt	
LC, HC	AP - VFO	Full Overlap Vest	
LC, HC	AP - VFW	Full Wrap Vest	
LC, HC	AP - VQ	Essential Apron Vest	
LC, HC	AP - VFBQ	Essential Flexback Apron Vest	
LC, HC	AP - WAQ	Essential Wraparound Back Relief	
LC, HC	AP - WAFO	Full Overlap Wraparound Back Relief	

LC, HC	AP - VEZ	EZ Vest	These styles have stated protection in a single front panel.
LC, HC	AP - TVEST	Tri-Tab Apron Vest	
LC, HC	AP - VW	Versa Wrap Apron	
LC, HC	AP - WAFB	Wrap Around Flexback Apron	
LC, HC	AP-MAWA	Maternity Wrap Flexback	
LC, HC	AP - MA	Maternity Apron	

## Dental and Reproductive Garments

The following Proguard Apron and accessory models provide **targeted** protection, with lead equivalence as marked on the label (0.25, 0.30, 0.35, 0.50 or 1.00mm Pb).

RP	AP - GONAD	Gonad Shield	DA	AP - DA	Dental Apron
RP	AP - GONSET	Gonad/Ovarian Shield Set	DA	AP - DC	Dental Cape
GA	AP - HA	Half Apron	DA	AP - DP	Dental Panoramic Poncho

## Thyroid Collars and Other Garments

The following Proguard accessory models provide **targeted** protection with lead equivalence as marked on the label (0.25, 0.35, 0.50, or 1.00mm Pb).

TC	AP - TCO	Original Thyroid Collar	OT	AP - PCAP	Page Cap
TC	AP - TCS	Standard Thyroid Collar	OT	AP - CAP	Head Cap
TC	AP - TCG	ProGuard Thyroid Collar	OT	AP - MATE	Chestmate
TC	AP - TCP	Pediatric Thyroid Collar	OT	AP-SLV	Apron Sleeve
TC	AP - TCM	Mammography Thyroid Collar	OT	AP-WINGS	Axillary Wings
TC	AP - TCB	Bib Thyroid Collar	OT	AP - STOLE	Breast Stole
TC	AP - TCV	Visor Thyroid Collar	OT	AP - ANGIOMIT	Angio Positioning Mitt
OT	AP - SG	Shin Guards	PM	AP - SLITMIT-R	Slit Mitt (Right)
OT	AP - PGCAP	Proguard Smart Cap	PM	AP - SLITMIT-L	Slit Mitt (Left)

## IV. PROTECTION & ATTENUATION/TRANSMISSION VALUES

### Core Materials tested to IEC 61331-1:2014, IEC 61331-1:2014 and ASTM 2547-18 Standards

The stated lead equivalence protection of your garment (0.25, 0.35, 0.50mm Pb), are measured under broad beam conditions at 50, 60, 70, 90, and 110kV using the required test method for Standard IEC 61331-1:2014. They are certified to be in compliance, within the allotted +/- 7% manufacturing tolerance (mm Pb).

Area Density	STANDARD LEAD (ST)			T-LITE (LL)			PROLITE BILAYER IEC (LFI)				
	kV range: 50 - 150kV			kV range: 50 - 150kV			kV range: 60 - 150kV				
	0.25mm	0.35mm	0.50mm	0.25mm	0.35mm	0.50mm	0.25mm	0.35mm	0.50mm	1.00mm	
	3.50 kg/m <sup>2</sup>	4.81 kg/m <sup>2</sup>	7.02 kg/m <sup>2</sup>	3.77 kg/m <sup>2</sup>	5.24 kg/m <sup>2</sup>	7.54 kg/m <sup>2</sup>	3.10 kg/m <sup>2</sup>	4.29 kg/m <sup>2</sup>	6.19 kg/m <sup>2</sup>	12.4 kg/m <sup>2</sup>	
BROAD BEAM	50 kVp	99%	100%	100%	99%	100%	100%	-	-	-	-
	60kVp	97%	99%	100%	98%	99%	100%	98%	99%	100%	100%
	70 kVp	95%	98%	99%	96%	98%	99%	96%	98%	100%	100%
	90 kVp	90%	94%	97%	91%	94%	97%	92%	96%	98%	100%
	110 kVp	86%	91%	95%	87%	91%	96%	88%	92%	96%	99%

### Core Materials tested to ASTM 2547-18 Standards

The stated lead equivalence protection of your garment (0.25, 0.35, 0.50mm Pb), are measured under narrow beam conditions at 80, 90, 100 and 110kV using the required test method for ASTM 2547-18. They are certified to be in compliance, within the allotted +/- 7% manufacturing tolerance (mm Pb).

Area Density	PROLITE (LF)			PREMIER (PR)			NANO (NA)		CLOUDCORE (CC)	
	kV range: 80 - 110kV			kV range: 70 - 110kV			kV range: 80 - 100kV		kV range: 80 - 130kV	
	0.25mm	0.35mm	0.50mm	0.25mm	0.35mm	0.50mm	0.35mm	0.50mm	0.125mm	
DIRECT BEAM	80 kVp	88.7%	94.3%	98.0%	91.1%	95.9%	98.7%	95.4%	98.2%	79.1%
	90 kVp	87.6%	93.5%	97.5%	89.4%	94.6%	97.9%	93.9%	97.3%	76.7%
	100 kVp	85.3%	91.8%	96.5%	86.3%	92.3%	96.5%	91.4%	95.6%	71.9%
	110 kVp	83.7%	90.5%	95.5%	84.2%	90.6%	95.2%	89.5%	94.2%	69.6%

The actual amount of radiation transmitted through the garment will vary in lead equivalence, beam kV, beam filtration (HVL) and absolute "exposure values" with distance from the beam/table and exposure time. These transmissions (%) measured in the reality of simulated scattered broad beams are shown below and will also vary with beam filtration.

**WARNING:** Cloudcore™ core material is *only* permitted for use in conjunction with approved barrier systems. Contact us for a list of approved systems.

## V. FIT AND SIZING

Maximum comfort, proper protection, and body coverage require proper sizing. Most of the aprons are individually patterned in Male or Female categories. The Female fit has smaller armholes to provide superior side-breast protection. All garments that are unisex are described as unisex and include the following products: all styles of thyroid collars, caps, gonad shields, shin guards, positioning gloves, half aprons and dental aprons. Proper garment sizing is important. Under or over-sizing may provide inadequate body coverage, may be uncomfortable, may stress/damage seams or material, may be unnecessarily heavy, and over time may lead to premature cracking of the protective core material. For proper apron sizing procedures, please refer to our sizing instructions: <https://protechmed.com/>

### Male Standard Apron Sizing (inches/centimeters)

	XS	Small	Med	Large	XL	2XL	3XL
<b>Height</b>	5'2"/157.48	5'4"/162.56	5'8"/172.72	5'11"/180.34	6'2"/188+	6'2"/188+	6'2"/188+
<b>Chest</b>	39"/99	42"/106.7	45"/114.3	49"/124.5	53"/134.6	57"/144.8	61"/154.9
<b>Waist</b>	32"/81.3	34"/86.4	38"/96.5	42"/106.7	46"/116.8	50"/127	54"/137.1
<b>Hips</b>	34"/86.4	36"/91.4	40"/101.6	44"/111.8	48"/121.9	52"/132.1	56"/142.2
<b>Frontal Length</b>	34"/86.4	34"/86.4	37"/94	40.5"/102.9	42.5"/108	42.5"/108	45.5"/115.6
<b>Frontal Width</b>	19"/48.3	21"/53.3	22"/55.9	24"/61	26"/66	28"/71.1	30"/76.2
<b>Vest Length</b>	22"/55.9	22"/55.9	24"/61	25"/63.5	25"/63.5	25"/63.5	28"/71.1
<b>Skirt Length</b>	20"/50.8	20"/50.8	20"/50.8	21"/53.34	21"/55.9	22"/55.9	22"/55.9
<b>WABR Length</b>	36"/91.4	36"/91.4	38"/96.5	40.5"/102.9	42.5"/108	42.5"/108	45.5"/115.6

### Female Standard Apron Sizing (inches/centimeters)

	XS	Small	Med	Large	XL	2XL	3XL
<b>Height</b>	5'1"/154.94	5'2"/157.48	5'5"/165.1	5'8"/172.72	5'10"/177.8	5'11"/180.34	-
<b>Chest</b>	36"/91.4	38"/96.5	40"/101.6	43"/109.2	46"/116.8	49"/124.5	52"/132
<b>Waist</b>	25"/63.5	27"/68.6	29"/73.7	32"/81.3	35"/88.9	40"/101.6	44"/111.8
<b>Hips</b>	35"/88.9	37"/94	39"/99.1	42"/106.7	46"/116.8	48"/121.9	52"/132.1
<b>Frontal Length</b>	33"/83.8	34"/86.4	36"/91.4	38.5"/97.8	40.5"/102.9	42.5"/108	42.5"/108
<b>Frontal Width</b>	18"/45.7	19"/48.3	20"/50.8	21"/53.3	23"/58.4	24"/61	26"/66
<b>Vest Length</b>	19"/48.3	22"/55.9	22"/55.9	22"/55.9	22"/55.9	23"/58.4	23"/58.4
<b>Skirt Length</b>	20"/50.8	20"/50.8	22"/55.9	22.5"/57.1	22.5"/57.1	22.5"/57.2	24"/61
<b>WABR Length</b>	33"/83.8	34"/86.4	37"/94	40.5"/102.9	42.5"/108	42.5"/108	44.5"/113

## VI. REGULATORY INFORMATION

### UKCA Type Examination

X-Ray Protection Garments and related accessories (“PPE”) described above is in conformity with the provisions of Regulation (EU) 2016/425 as brought into UK Law and amended; the models satisfy the requirements of the manufacturer’s technical and quality management specifications with testing based upon IEC 61331-1:2014, IEC 61331-3:2014 and applicable FDA regulations and ASTM testing standards. This is identical to the PPE which BTTG, Approved Body #0338 (6 Wheel Forge Way, Trafford Park, Stretford, Manchester M17 1EH, United Kingdom), performed the EU Module B type-examination on and issued the EU type-examination Certificate #523415. The PPE is subject to the conformity assessment procedure set out in Regulation (EU) 2016/425 as brought into UK Law and amended, Module D (Certificate #54180) under surveillance of the Approved Body BTTG, Approved Body # 0338, performed at Protech Ledged Eyewear, Inc. DBA Protech Medical, 7960 Central Industrial Drive, Suite 125, West Palm Beach, FL 33404 USA.



UKCA DoC

**For detailed Declaration of Conformity info, scan the QR code.**

**Direct UKCA DoC URL: [www.protechmed.com/declarations-of-conformity](http://www.protechmed.com/declarations-of-conformity)**

### EU Type Examination

X-Ray Protection Garments and related accessories (“PPE”) described above is in conformity with the provisions of Regulation (EU) 2016/425 and the models satisfy the requirements of the manufacturer’s technical and quality management specifications with testing based upon IEC 61331-1:2014 and IEC 61331-3:2014. This is identical to the PPE which Shirley Technologies (Europe) Limited, Notified Body 2895 (Port Tunnel Business Park, Office 13 Unit 21, Dublin 17, ROI), performed the EU Module B type-examination on and issued the EU type-examination Certificate #SH00791. The PPE is subject to the conformity assessment procedure set out in Regulation (EU) 2016/425, Module D (Certificate #SH00654) under surveillance of the notified body Shirley Technologies (Europe), Limited, notified body number 2895, performed at Protech Ledged Eyewear, Inc. DBA Protech Medical, 7960 Central Industrial Drive, Suite 125, West Palm Beach, FL 33404 USA.




EU DoC

**For detailed Declaration of Conformity info, scan the QR code.**

**Direct UKCA DoC URL: [www.protechmed.com/declarations-of-conformity](http://www.protechmed.com/declarations-of-conformity)**

# VII. PRODUCT LABELING AND PACKAGING

Inside your garment/accessory you will find a label identifying the specific model, size, and protection of your garment.



**PROTECH MEDICAL**

Protech Leaded Eyewear, Inc.  
7960 Central Industrial Drive, Suite 125  
West Palm Beach, FL 33404 USA  
561.627.9769 | www.protechmed.com

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**Style/SKU:**

**Gender:**

**Size:**

**Custom Notes:**

**Core Material:**

**Lead Equivalence (front):**

**Lead Equivalence (back):**

**X-Ray Tube Voltage:**

**Area Density:**

Core Materials Certified to  
EN 61331-3:2014, EN 61331-1:2014  
and ASTM F2547-18 Standards.







**PO #:** \_\_\_\_\_

**LOT#:** \_\_\_\_\_

**MFG Date:** \_\_\_\_\_


**Notes:** \_\_\_\_\_

**Type:** \_\_\_\_\_









**Care and Cleaning Instructions:** Wipe with cool water and diluted soap. Do not fold or step on apron. Always store on apron rack. Do not subject to extreme temperature. Store at 70-80°F (21-27°C). Temperature Limits approximately: 60-100°F (16-38°C). Reference Apron IFU for more information.

**UK 0338 C € 2895**



DOC #AP.B3 (v2 - rev.5) 1.14.2026



**PROTECH MEDICAL**

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7960 Central Industrial Drive, Suite 125  
West Palm Beach, FL 33404 USA  
561.627.9769 | www.protechmed.com

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**Style/SKU:**

**Gender:**

**Size:**

**Custom Notes:**

**Core Material:**

**Lead Equivalence (front):**

**Lead Equivalence (back):**







Core Materials Certified to  
ASTM F2547-18 Standards.

**PO #:** \_\_\_\_\_


**LOT#:** \_\_\_\_\_

**MFG Date:** \_\_\_\_\_

**Notes:** \_\_\_\_\_

**Care and Cleaning Instructions:** Wipe with cool water and diluted soap. Do not fold or step on apron. Always store on apron rack. Do not subject to extreme temperature. Store at 70-80°F (21-27°C). Temperature Limits approximately: 60-100°F (16-38°C). Reference Apron IFU for more information.



DOC #AP.B6 (v1 - rev.2) 1.14.2025

**[Header]** Manufacturer Logo, Name and Address

**Style/SKU:** Manufacturer product code representing each unique product and/or style.

**Gender:** Gender refers to the intended design fit: Male and Female styles align with traditional sex-based sizing, while Unisex styles are designed to suit all genders without conforming to a specific gendered fit.

**Size:** Size refers to the overall dimensions of the product, typically defined by length, width, and related measurements. Available size options include Petite, XS, S, M, L, XL, 2XL, 3XL, 4XL, and Custom.

**Custom Notes:** Custom notes typically used to indicate custom measurements for "custom sizing."

**Core Material(CM):** The flexible, x-ray protective material component ranging from Standard Lead, Ultralite, Prolite, Prolite Bilayer IEC, Premier, and Nano.

**Lead Equivalence - Front (LE):** A protection thickness defined and derived from a given country's protection standard such as ASTM or IEC 61331-1:2014. This is not to be confused with the physical, measured product thickness but is instead derived from a standardized test setup and represented by a test result such as: 0.25mm LE, 0.35mm LE, or 0.50mm LE.

**Lead Equivalence - Back (LE):**

**X-Ray Tube Voltage:** A defined "power range" used by modern x-ray machines for which a product provides optimal protection for. Ranges vary but can be: 50 – 150 kV, 50 – 110 kV, 60 – 110 kV, 90 – 110kV, or single results such as 90 kV or 100 kV.

**Area Density:** The amount of quantity (often mass) per unit of area. This is not a physical weight measurement.

**PO#:** The order # or purchase order number provided by the customer when they submit their order.

**LOT#:** A serial number or sequence which can either (1) represent a group or "lot" of products that were made together in the same production run, produced using the same materials, or produced within a defined time period and is used for traceability purposes or (2) carry over from an existing lot of major protective raw material such as the core material.

**MFG Date:** Date of manufacture usually defined as month/day/year (mm/dd/yyyy)

### Explanation of Pictograms and Markings

						
Hand wash only	Do not Bleach	Do not Iron	Do not Dry Clean	Do not Tumble Dry	Please read user manual before using	Protective clothing against diagnostic medical X-Radiation

## VIII. PACKAGING, STORAGE, AND TRANSPORTATION

### Packaging and Storage

Proguard garments are packaged and shipped in crush proof boxes. Once received into hospital inventory, the garment should be kept out of direct sunlight and not exposed to extreme temperatures. Do not subject the garment to temperatures above 140°F nor below 60°F. Avoid prolonged temperatures above 100°F (38°C) and below 60°F (16°C) .

Be sure to store the garment in a dry, climate-controlled facility between 70–80°F (21–27°C). Use recommended garment storage devices such hangers, valet racks, or other storage devices. Do not fold or crease your garment.

During transport of the garment, you may use a garment duffel bag or spacious box. Gently roll the garment around a circular cardboard piece and carefully place it into the duffel bag or box. Do not fold or crease your garment.

### Maintenance

It is important to establish a consistent, deep-cleaning schedule to mitigate the risk of pathogen transmission. Lead garments should be wiped clean after each use. Most dirt and stains (blood, bodily fluids, barium contrast media) on Lead Garment fabrics can be cleaned by using room temperature water along with the following cleaning solutions: mild diluted soap, alcohol or ammonium-based wipes, and highly diluted Clorox hydrogen peroxide (not recommended for long-term use). To apply cleaning fluid, please use a cloth or wipe and always use room temperature water. Examples of approved cleaners include: PDI Sani-Cloth® AF3 Germicidal Disposable Wipes, PDI Super Sani-Cloth® Germicidal Disposable Wipes, CaviCide® wipes.

**DO NOT: Do not use petroleum-based cleaning solvents. Do not machine wash or dry. Do not use hot water. Do not iron or autoclave. Do not dry clean.**

### Repairs & Disposal

**Repairs:** For repairs, alterations, trade-ins, recovery and other services, please contact Protech or your local representative. **Disposal:** Users must dispose of Lead Garments and accessories by complying with local, state, and federal or international regulations where applicable.

### Inspections

Regular, annual inspections of your garment are recommended using radiographic or fluoro operating at 70–90kV. Lines may indicate cracks and dots may be pinholes (seen as dark on film, clear on fluoro) -- consult your radiation safety officer.

During inspection, there are specific signs of damage you can look for that may indicate the need for lead apron replacement. Research by physicians K. Lambert and T. McKeon established the following rejection criteria:

- Defects exceeding 15 mm<sup>2</sup> over critical organs (thyroid glands and gonads)
- Defects exceeding 670 mm<sup>2</sup> along seams, in overlapped areas, or on the back
- Defects exceeding 11 mm<sup>2</sup> for thyroid shields

When you have aprons meeting these criteria, our team can help with proper disposal and then replace aprons. Protech's lead garment inspection software can help record results of annual PPE (garment) inspections and track garment inventory while ensuring compliant and environmentally friendly practices. Please visit [avacloud.com](http://avacloud.com) for more information.

## IX. CAUTIONARY STATEMENT

### CAUTION (EN)

Before use, check to ensure your lead garment is in good, working condition, has not been scratched or punctured, and conforms to order details. Protech does not x-ray aprons during its QC process. Pin holes or other damage to the protective core material may go unnoticed and can compromise protection. If any issues are detected, use of Lead Garment should cease immediately until it has been properly repaired or replaced.

### PRECAUCIÓN (ES)

Antes de usarla, compruebe que la prenda de plomo está en buenas condiciones de uso, que no presenta arañazos ni pinchazos y que se ajusta a los datos del pedido. Protech no radiografía los delantales durante su proceso de control de calidad. Los pequeños agujeros u otros daños en el material del núcleo protector pueden pasar desapercibidos y comprometer la protección. Si se detecta algún problema, debe interrumpirse inmediatamente el uso de la prenda de plomo hasta que se haya reparado o sustituido correctamente.

### VORSICHT (DE)

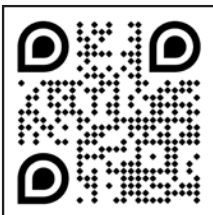
Vergewissern Sie sich vor seiner Verwendung, dass Ihr Bleikleidungsstück in gutem, funktionsfähigem Zustand ist, keine Kratzer oder Löcher aufweist und mit den Bestellangaben übereinstimmt. Während des Qualitätskontrollverfahrens werden die Schürzen bei Protech nicht geröntgt. Nadellöcher oder andere Beschädigungen des im Inneren befindlichen Schutzmaterials können unbemerkt bleiben und den Schutz beeinträchtigen. Wenn irgendwelche Probleme festgestellt werden, sollte die Verwendung der Bleikleidung sofort eingestellt werden, bis sie ordnungsgemäß repariert oder ersetzt wurde.

### ATTENTION (FR)

Avant utilisation, vérifiez que votre vêtement de plomb est en bon état, qu'il n'a pas été rayé ou perforé et qu'il est conforme aux détails de la commande. Protech ne passe pas les tabliers aux rayons X au cours de son processus de contrôle de qualité. Les trous d'épingle ou autres dommages au matériau de l'âme protectrice peuvent passer inaperçus et compromettre la protection. Si des problèmes sont détectés, l'utilisation du vêtement de plomb doit cesser immédiatement jusqu'à ce qu'il ait été correctement réparé ou remplacé.

### CUIDADO (PT)

Antes de usar, verifique se sua vestimenta de chumbo está em boas condições de funcionamento, se não foi arranhada ou perfurada e se está de acordo com os detalhes do pedido. A Protech não faz radiografia dos aventais durante seu processo de controle de qualidade. Furos de alfinetes ou outros danos ao material do núcleo protetor podem passar despercebidos e comprometer a proteção. Se for detectado algum problema, o uso da vestimenta de chumbo deve ser interrompido imediatamente até que seja devidamente reparado ou substituído.



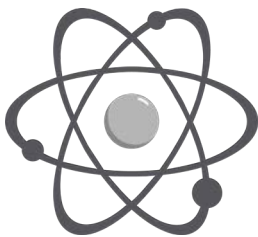
(EN) To view this cautionary statement and document in other languages, please scan the QR code.

(ES) Para ver este documento en otros idiomas, escanee el código QR.

(DE) Um dieses Dokument in anderen Sprachen anzuzeigen, scannen Sie bitte den QR-Code.

(FR) Pour visualiser cette mise en garde et ce document dans d'autres langues, veuillez scanner le code QR.

(PT) Para visualizar este documento em outros idiomas, escaneie o código QR.



**PROTECH**  
**MEDICAL**

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