

# XENOLITE™

by DuPont Technology

**Radiation Protection Garments**

Meets I.E.C. Protection Standards



*Less Weight...Full Protection!*  
The Original Lightweight That Fully Protects!

**GO GREEN!**



Manufactured By:

**LITE TECH, INC.**

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# LITE TECH, INC.

Lite Tech, Inc. was established in 1992 acquiring the patented **Xenolite** lightweight x-ray protection business and technology from DuPont (Canada). Since then, the Company has expanded rapidly and globally. **Xenolite** and **Xenolite Lead Free** are now the most recognized and tested lightweight x-ray protection products in the world. Nearly 200,000 aprons are sold in over 24 countries. Headquartered near Philadelphia, Lite Tech is one of few fully integrated x-ray apron manufacturers. Lite Tech produces its own proprietary core/sheet materials in their Norristown, Pennsylvania Plant.

**Xenolite** was created by the original 1991 R & D technology from DuPont. **Xenolite** was the world's first lightweight, multi-element, composite x-ray protection material designed to replace lead-vinyl while offering a 30% weight reduction. The Company has developed unrivalled leading-edge capability in the combined sciences of radiation physics and complex highly-filled plastics processing. This technology has enabled Lite Tech to formulate and engineer new products. **Xenolite Lead Free** is the first "lead free" and environmentally friendly material.

Lite Tech's "in-house" sheet production and technical resources enable total quality control at all stages of manufacturing. Quality audits are done annually by SGS to comply with European CE - label standards. The **Xenolite** and **Xenolite Lead Free** products conform to the stringent world standard IEC 61331-1 (both 80 kV & 100 kV). They remain the lightest-weight x-ray aprons in the world offering full protection (mm Pb) even when subjected to more penetrating filtered beams at high kV's.

## Core Material Options – Lite Tech grades/types

**Xenolite NL (Lead Free)** - a lead-free, super-lightweight 2-element composite. **Xenolite NL** is recyclable and safe for non-hazardous disposal. Lead-vinyl is 40% heavier. Product code number is 800, e.g. # 830VS.

**Xenolite TB (Lead Free)** - a lead-free, super-lightweight 2-element composite. **Xenolite TB** is recyclable and safe for non-hazardous disposal. Lead vinyl is 35% heavier. Product code number is 700, e.g. #730VS.

**Xenolite B** - the original lightweight composite, 3-element material, with some lead content. **Xenolite** is mid-priced and recyclable. Lead-vinyl is 30% heavier. Product code number is 600, e.g. #630VS.

**Xenolite C** - a lightweight composite, 2-element material, with some lead content. **Xenolite C** is mid-priced and recyclable. Lead vinyl is 25% heavier. Product code number is 500, e.g. #530VS.

**Eval 10** - a 100% lead-based material. **Eval** is used for lower-priced, non-weight sensitive products as well as gamma-radiation (Nuclear Medicine) applications. This material is also used for x-ray procedures (CT-assist, thorax) over 120 kV. Product code number is 900, e.g. #930VS.

## Protection Level Options

Standard medical x-ray protection levels available include 0.50, 0.35 and 0.25 mm Pb. Front/back protection is usually in the following combinations: 0.50/0.35, 0.50/0.25, 0.35/0.35, 0.35/0.25 & 0.25/0.25. Worldwide, the minimum frontal protection for medical use is 0.25 mm Pb (except Michigan, 0.50). In Europe and other countries adopting IEC 61331-3, the "light-duty" is 0.25 mm Pb, "heavy-duty" minimum 0.35 mm Pb (front).

**TO ORDER CALL 610-650-8690**

# VEST/SKIRT APRONS

All Vest/Skirt Aprons create maximum weight distribution between the shoulders and hips which eliminates stress on the upper and lower back. Vest/Skirt Aprons also provide greater flexibility to the wearer with regard to sitting, bending, or stooping. The skirt is designed for complete overlap to provide maximum protection. Vest/Skirt sizes can be mixed to provide maximum comfort and fit.

## All Vest/Skirt Aprons come with standard features:

- Shoulder pads
- Pockets on vest and skirt
- Hanging loops on skirt



### X20VS Weight Relief Vest/Skirt Apron

- Single piece front vest panel makes this model extremely light
- Velcro closure at right side and right shoulder of vest
- Unisex sizes



### X30VS Vest/Skirt Apron

- The original design in wrap around protection
- Overlapping panels on vest allow for greater protection as well as greater adjustment
- Male/female sizes



### X35VS Elastic Back Saver Vest/Skirt Apron

- Elastic Velcro straps cross at lower back to provide excellent lumbar support
- Eliminates weight on shoulders
- Velcro closure at left shoulder
- Male/female sizes

# FULL WRAP APRONS

All Full Wrap Aprons offer maximum protection. These aprons combine comfort with superior lumbar support which reduces fatigue and upper back stress during long procedures.

All Wrap Aprons come with standard features:

- Shoulder pads
- Adjustable 7" (18 cm) elastic belt comes standard with the Special Procedure Apron (X201) and the Overwrap Apron (X250)
- Pocket



## X200TS Tabbard Style Apron

- Right shoulder and side Velcro closure allow for easy access
- Simple single piece design makes this model extremely light
- Unisex sizes



## X201 Special Procedure Apron

- Overlapping panels allow for greater protection as well as greater adjustment
- Adjustable 7" (18 cm) elastic belt distributes weight on hips and shoulders
- Velcro side seams allow the sides of the apron to separate when bending or sitting, and still maintain front protection
- Male/female sizes

## X250 Overwrap Apron

- Full overlapping front panels allow for weight reduction and maximum protection
- Front panel closes at right side and right shoulder with Velcro
- Adjustable 7" (18 cm) elastic belt distributes weight on hips and shoulders
- Male/female sizes



# FRONTAL APRONS

All Frontal Aprons allow for freedom of movement, maximum flexibility, and optimal comfort. The open back design makes all these aprons exceptionally light.

All Frontal Aprons come with standard features:

- Shoulder pads
- Pocket
- Male/Female sizes



## X10E Elastic Tab Apron



- Elastic tabs allow for comfortable fit around the waist
- Reduces shoulder stress
- Body hugging design shifts weight from shoulders to waist



## X10K Back Support Apron

- Unique design distributes weight between shoulders and lower body
- Adjustable 7" (18 cm) elastic support belt offers greater lower back support
- Belt attaches to side with keyring
- Velcro shoulder closure



## X10PHP

- Crisscross elastic back provides greater weight distribution
- Velcro tabs at both shoulders and waist allow for quick removal



**4" Velcro strips  
allow for better  
adjustments**

# FRONTAL APRONS

## X10A Adjustable Weight Apron



- Crisscross shoulder design keeps the apron in place when bending or stooping
- Velcro tabs make it easy to put on and take off
- Reduces bunching on back and on shoulders



*Optional Velcro strap closure and/or 6" built in elastic back panels can be added to this apron.*

## X10Q O.R. Quick Drop Apron



- Worn over the scrub suit and under the O.R. gown for quick removal without breaking the sterile field after x-ray procedures are completed



## X10R Shoulder Release Apron



- Crisscross shoulder design keeps the apron in place when bending or stooping
- Velcro tabs at shoulder and waist allow for quick removal

# FRONTAL APRONS



## X10S Strap Apron

- Features a cotton strap closure which is double stitched for durability
- Velcro shoulder closure



## X10B Buckle Apron

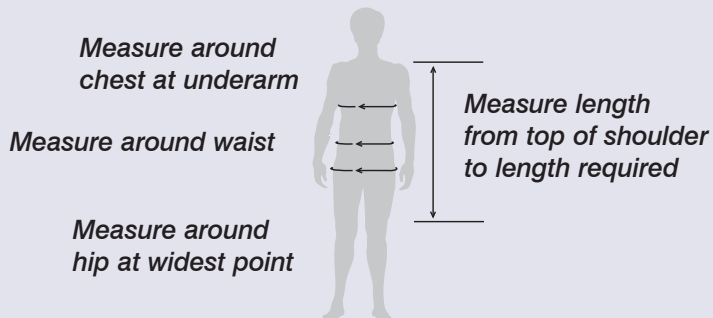
- Features a 2" (5 cm) wide adjustable waist strap with buckle
- Velcro shoulder closure



*Optional Velcro strap closure and/or 6" built in elastic back panels can be added to this apron.*

\*\*\*\* Please call for additional apron styles

## BASIC MEASUREMENTS TO DETERMINE SIZE OF APRON:



To order call 610-650-8690  
or visit us online at:  
[www.xenolitexray.com](http://www.xenolitexray.com)

See page 8 or 9 for sizing info.

# ACCESSORIES



## Mobile Apron Rack

This rack is perfect for rooms where floor space is limited. This mobile rack uses only 24" of floor space. It holds up to 12 aprons and thyroid collars.

### Specifications:

The Mobile Apron Rack consists of 8 prongs. It measures 48" from top to bottom. Color: White

<u>Item#</u>	<u>Description</u>
9880	Mobile Apron Rack



## Valet Apron Rack

This valet holds up to 300 lbs of aprons. It is constructed of sturdy painted metal and features wheels that can lock in place. Five hangers are included with each unit. Additional hangers can be purchased separately. Each hanger has a closed loop and cannot be fully removed without dismantling the unit.

### Specifications:

The valet measures 54" high, 36" wide, and 24" deep. Color: White

<u>Item #</u>	<u>Description</u>
9890	Apron Valet with 5 hangers



## 8 Peg Apron Rack

This rack holds four aprons, including vest/skirt aprons and thyroid shields. It is steel construction with rubber tips. There are four mounting holes.

### Specifications:

It measures 3" high by 24" wide. Color: White

<u>Item #</u>	<u>Description</u>
5136	Apron Rack

\*\*\*\* Please call for additional apron rack designs



## Elastic Back Support Belt

Adjustable 7" (18 cm) elastic belt connects to apron with keyring.

<u>Item #</u>	<u>Description</u>
5100	Back Support Belt



**X40T  
Thyroid Collar**

- Standard size
- Large size  
(over 20"/51cm neck)



**X50H  
Humeral Shield**



**X40H  
Half Aprons**

- Velcro closure system
- 0.50 mm Pb equivalency

	<u>U.S. Size</u>	<u>Metric Size</u>
X40H-1	8x10"	20x25
X40H-2	12x14"	30x35
X40H-3	16x18"	40x45
X40H-4	18x24"	45x60
X40H-5	Set of 3 8x10" 12x14" 16x18"	Set of 3 20x25 30x35 40x45

## RADIATION PROTECTIVE EYEWEAR

All glasses are made with the highest quality **SCHOTT** glass and offer .75mm lead equivalency. Most styles are available in the following prescriptions: Single, Bifocal, and Progressive.



**LT5050 Wrap**

A lightweight fashionable wrap around nylon frame with a built in adjustable nose piece to distribute weight evenly over the nose. The ear-pieces are attached by spring hinges designed to withstand the rigors of hospital use.  
\*Weight: 85 grams



**LT400 Fitover**

The Fitover is designed to wear over prescription glasses. The oversized frame offers excellent protection and large viewing area.  
\*Weight: 92 grams



**LT100 Ultralite**

Manufactured of lightweight nylon and designed to provide protection for the entire eye area. The curved front and temple bar with rubber tips allow for a close secure fit. (Available in Black, Silver, Red, and Blue/Gray.)  
\*Weight: 58 grams



**LT500 Maxi**

The Maxi is slightly smaller than the Ultralite and includes a soft rubber nose bridge for increased comfort. (Available in Black, Silver, Red, and Navy)  
\*Weight: 63 grams



**LT200 Euro**

A standard safety frame which offers excellent protection and large viewing area. Universal form fit bridge.  
\*Weight: 75 grams



**LT600 MetalFlex**

The MetalFlex frames are constructed of optical steel base metal with either bronze or gold electroplate. Each pair is made with an adjustable non-slip silicone nose pad for maximum comfort.  
\*Weight: 62 grams



**LT300 Astro**

These widely used safety frames are quite flexible in temple length and the frame angle can be adjusted for a more custom fit. The front of the frame is fitted snugly to the brow to help alleviate fluid run-off into the eyes.  
\*Weight: 75 grams

\*\*\*Weights on glasses are subject to change.

# U.S. SIZING

## VEST SIZES

<u>SIZE</u>	<u>DIMENSION</u> <u>WxL"</u>	<u>SUIT SIZE</u>	<u>DRESS SIZE</u>	<u>CHEST</u>	<u>MAX. HEIGHT</u>
X-Small	20x20"	34-35	2-4	32/33"	5'8"
Small	21x21"	36-37	6-8	34/35"	5'8"
Medium	22x22"	38-40	10-12	36/39"	5'10"
Large	23x23"	42-44	14-16	40/42"	6'0"
X-Large	24x24"	46-48	18-20	44/46"	6'2"
XX-Large	25x25"	50-52	22-24	48/50"	6'3"

## SKIRT SIZES

<u>SIZE</u>	<u>DIMENSION</u> <u>WxL"</u>	<u>SUIT SIZE</u>	<u>DRESS SIZE</u>	<u>WAIST</u>	<u>MAX. HIPS</u>
X-Small	24x19"	34-35	2	21/24"	30"
Small	28x20"	36-37	4-10	25/28"	34"
Medium	32x21"	38-40	10-14	29/32"	38"
Large	36x22"	42-44	16-18	33/36"	42"
X-Large	40x23"	46-48	20-22	37/40"	46"
XX-Large	44x24"	50-52	24-26	41/44"	50"

**Note:** Specify male or female

## WRAP SIZES

<u>SIZE</u>	<u>DIMENSION</u> <u>WxL"</u>	<u>SUIT SIZE</u>	<u>DRESS SIZE</u>	<u>CHEST</u>	<u>MAX. HEIGHT</u>
X-Small	20x34"	34-35	2-4	32/33"	5'6"
Small	21x36"	36-37	6-8	34/35"	5'8"
Medium	22x38"	38-40	10-12	36/39"	6'0"
Tall-Medium	22x40"	38-40T	10-12	36/39"	6'0"
Large	23x40"	42-44	14-16	40/42"	6'0"
Tall-Large	23x43"	42-44T	14-16	40/42"	6'3"
X-Large	24x40"	46-48	18-20	44/46"	6'0"
XX-Large	25x42"	50-52	22-24	48/50"	6'2"

**Note:** Specify male or female

## MENS FRONTAL APRONS

<u>SIZE</u>	<u>DIMENSION</u> <u>WxL"</u>	<u>SUIT SIZE</u>	<u>CHEST</u>	<u>MAX. HEIGHT</u>
Small	24x36"	36-37	34/35"	5'8"
Medium	24x38"	38-40	36/39"	6'0"
Large	24x40"	42-44	40/42"	6'0"
Tall-Large	24x43"	42-44T	40/42"	6'3"
X-Large	25x40"	46-47	44/45"	6'0"
XX-Large	26x42"	48-50	46/48"	6'2"

## WOMENS FRONTAL APRONS

<u>SIZE</u>	<u>DIMENSION</u> <u>WxL"</u>	<u>DRESS SIZE</u>	<u>CHEST</u>	<u>MAX. HEIGHT</u>
X-Small	20x34"	2-4	32/33"	5'6"
Small	22x34"	4-6	34/35"	5'6"
Medium	22x36"	8-10	36/39"	5'8"
Tall-Medium	22x40"	8-10	36/39"	6'0"
Large	24x40"	14-16	40/42"	6'0"
X-Large	25x40"	18-20	43/46"	6'1"

# METRIC SIZING

VEST SIZES		Lengths 53 / 55 / 60 / 63		
<u>SIZE</u>	<u>DIMENSION</u> <u>W(cm)</u>	<u>SUIT SIZE</u>	<u>DRESS SIZE</u>	<u>CHEST</u>
X-Small	51	44	34-36	80-84 cm
Small	53	46	36-38	85-90 cm
Medium	56	48-50	38-40	91-98 cm
Large	58	52-54	42-46	99-107 cm
X-Large	61	56	48-50	108-115 cm
XX-Large	64	58	52	116-130 cm

SKIRT SIZES		Lengths 50 / 55 / 60 / 63			
<u>SIZE</u>	<u>DIMENSION</u> <u>W(cm)</u>	<u>SUIT SIZE</u>	<u>DRESS SIZE</u>	<u>WAIST</u>	<u>MAX. HIPS</u>
X-Small	61	44	34-36	53-62 cm	77 cm
Small	71	46	36-38	63-72 cm	87 cm
Medium	81	48-50	38-40	73-82 cm	97 cm
Large	91	52-54	42-44	83-92 cm	107 cm
X-Large	101	56	46-48	93-102 cm	117 cm
XX-Large	112	58	50-52	103-112 cm	127 cm

Note: Specify male or female

WRAP SIZES		Lengths 95 / 100 / 105 / 110 / 115 / 120			
<u>SIZE</u>	<u>DIMENSION</u> <u>W(cm)</u>	<u>SUIT SIZE</u>	<u>DRESS SIZE</u>	<u>CHEST</u>	<u>MAX. HIPS</u>
X-Small	51	44	34-36	80-84 cm	77 cm
Small	53	46	36-38	85-90 cm	87 cm
Medium	55	48-50	38-40	91-96 cm	97 cm
Large	58	52-54	42-44	99-107 cm	107 cm
X-Large	61	56	46-48	108-115 cm	117 cm
XX-Large	63	58-60	50-52	116-130 cm	127 cm

Note: Specify male or female

MENS FRONTAL APRONS		Lengths 100 / 105 / 110 / 115 / 120		
<u>SIZE</u>	<u>DIMENSION</u> <u>W(cm)</u>	<u>SUIT SIZE</u>		<u>CHEST</u>
		<u>EURO</u>	<u>UK</u>	
Small	61	46	36	86-90 cm
Medium	61	48-50	38-40	91-98 cm
Large	61	52-54	42-44	99-107 cm
X-Large	63	56-58	44-48	108-115 cm
XX-Large	66	58-62	48-54	116-130 cm

WOMENS FRONTAL APRONS		Lengths 95 / 100 / 105 / 110 / 115		
<u>SIZE</u>	<u>DIMENSION</u> <u>W(cm)</u>	<u>SUIT SIZE</u>		<u>CHEST</u>
		<u>EURO</u>	<u>UK</u>	
X-Small	51	34-36	6-8	80-84 cm
Small	56	36-38	10-12	85-89 cm
Medium	56	40-42	14-16	90-94 cm
Large	61	42-44	18-20	95-107 cm
X-Large	63	46-50	20-22	108-115 cm

# XENOLITE LEAD FREE COMPETITIVE FEATURE BENEFITS

*The following is a fact-based\* comparison of XENOLITE LEAD FREE versus other lead-free aprons in the USA. These competitive aprons are all based on tin or tin-antimony attenuating materials, whereas XENOLITE LEAD FREE is a scientifically balanced, proprietary, patented mixture of two complementary attenuating elements providing lighter weight and better protection.*

- XENOLITE LEAD FREE is the world's lightest-weight apron material when compared at equal protection (80 kV-120 kV).
- Tin-based competitive materials are 15 to 30% heavier for the same protection.
- XENOLITE LEAD FREE delivers and guarantees its stated mm Pb protection at 100 kV. Most tin-based products are designed and tested at only 80 kV which is their peak protection. They do not provide the stated/label protection at 100 kV where there is two to three times greater transmission and exposure than at 80 kV.
- XENOLITE LEAD FREE is the only lead-free material in the USA which meets the tough new IEC world standard for apron protection (IEC 61331-3/1) at both the 80 kV & 100 kV test levels, with 0.15/0.25 mLD Cu filtration.
- Several scientific papers have been written about the XENOLITE LEAD FREE innovative technology. It has been tested and approved by hospitals and government agencies in over 10 countries, complying with DIN, JIS and CE marking EC requirements. Copies of test data are available on request.
- At the high kV of some special procedures(120 kV) the tin-based competitors lose over 20% of their protection. They are well below 0.40 mm Pb. This means a 70% higher exposure. XENOLITE LEAD FREE provides the most consistent protection over the range 60 kV-125 kV and has up to 20% lower transmissions.
- Beware of aprons with labels that do not show protection as mm Pb but only as % attenuation. They may be disguising true protection values. One apron states "> 84% attenuation at 100 kV". This means 16% is getting through, two to three times more exposure than XENOLITE LEAD FREE's 0.50 mm Pb apron and almost double its 0.35 mm Pb apron.
- XENOLITE LEAD FREE is the only truly recyclable material and it is re-used to make new aprons. Alternatively, it can be incinerated or safely disposed of in municipal landfills as a non-hazardous waste. It contains no toxic heavy metals.
- XENOLITE LEAD FREE is latex-free and does not use plasticized PVC/vinyl. PVC/vinyl contains both chlorinated hydrocarbons (a toxic hazard when incinerated) and phthalate plasticizers (a group of compounds in which several are banned due to toxicity).

*\*Test data from Lfas Tests (Spring 2003) and Columbia University New York, NY. (2004)*



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