

THE SCIENCE BEHIND PROTECTION

Burlington Medical, the best fit in the industry, combined with the best x-ray protection using lightweight, lead-free and bi-layer technology.



Our **XENOLITE**[®] line of x-ray aprons is recyclable and safe for non-hazardous disposal.

Burlington Medical has an extensive knowledge of radiation physics and state-of-the-art technology. Today we are the industry's only fully integrated x-ray protection manufacturer with an in-house lab, and a full team of research and development engineers who develop and produce proprietary core/sheet materials.

- Recyclable and safe for non-hazardous disposal
- ✓ Lightweight, lead-free, and bi-layer technology
- ✓ Only fully-integrated x-ray protection manufacturer

FACT: More than 150,000 lead x-ray aprons are disposed of every year, adding in excess of one million pounds of toxic lead metal waste across the globe.

FACT: Burlington Medical is committed to reversing this impact with environmentally-conscious products.

XENOLITE[®] 800-NL (No-Lead)

XENOLITE "NL" is a lead-free, super-lightweight, flexible and recyclable x-radiation protection material, using a mixture of two attenuating elements, antimony and tungsten, in a mixture optimized for minimum area-weight and maximum attenuation in the key diagnostic imaging range of 80 – 100 kV.

K-EDGE TECHNOLOGY

The lighter weight (lead-vinyl is 32% heavier) results from the use of the two attenuating elements, where the antimony provides more efficient attenuation of that portion of the photon spectrum below the K-edge window of lead (35 - 88 keV), complemented by the higher Z element tungsten, which is more efficient for stopping higher energy radiation (> 69 keV), and also covers the K-edge window of antimony (< 35 keV).

COMBINED WITH ADVANCED POLYMER TECHNOLOGY

The attenuating elements, in fine powder form, are supported, encapsulated and homogeneously distributed in a tough-but-flexible, high-tech plasticized Dow elastomer matrix. This Dow-DuPont developed elastomer carrier was selected in 2012 after a year of R&D as having the best balance of toughness, flexibility, durability, and cracking resistance, and is more commonly used for flexing components (e.g. running shoes, wire and cable).

ENVIRONMENTAL BENEFITS

The lead-free material is not "cross-linked" (or "cured") and is therefore fully recyclable and thermally re-processable, or may be disposed of as a non-hazardous, non-toxic waste in municipal landfills.

SPECIFICATIONS

Area-weight **5.40 kg/sq m** (9.9 lb/sq yd) for 0.50 mm Pb equivalence (80-100 kV^{*}) Protection 0.50 (4-ply), 0.35 (2-ply) and 0.25 (2-ply) mm Pb equivalence^{*}

	Transmission (Direct Beam)		
	0.50mm	0.35mm	0.25 mm
80kV	2.1%	4.5%	8.2%
100kV	6.2 %	11.3 %	17.9%

Transmission (Direct Beam)

Tolerances - 7%/+2% (thickness, weight and mm Pb), within DIN EN 61331-3 limits

*Test Method IEC 1331-1/ EN 61331-1, 80 kV (0.15 mm Cu) & 100 kV (0.25 mm Cu), narrow



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Burlington Medical