



Xenolite® STRATA⁺ Bi-Layer Protection

compliant with IEC 61331:2014



THE SCIENCE BEHIND PROTECTION

Lite Tech, the first fully integrated x-ray protection manufacturer to develop lightweight, lead-free bi-layer technology.

Xenolite Strata⁺ (300 Series) meets the new IEC standard 61331:2014 in accordance with the lab guidance note, adopted for PPE/CE label by the PPE Notified Bodies in September, 2016. **This bi-layer, lead-free material has passed all PTB testing for the new and stringent European Standard.**

Lite Tech 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.

- ✓ World's first Bi-Layer protection material
- ✓ Recyclable and safe for non-hazardous disposal
- ✓ Only fully-integrated x-ray protection manufacturer

XENOLITE Strata + 300 Series Bi-Layer

XENOLITE Strata + 300 Series is a lead-free, lightweight, flexible and recyclable x-radiation protection material, using two attenuating elements, one low Atomic Weight (“Z”) element and one high Z element, in a layered combination optimized for minimum area-weight and maximum attenuation in the key diagnostic imaging range of 50/70/90/110 kV, representing the scatter from X-Ray tubes having 60-125kV tube voltage.

K-EDGE TECHNOLOGY

STRATA+'s lighter weight results from the use of the two attenuating elements. The low Z element gives more efficient attenuation of the lower energy photon spectrum below the K-edge window of lead (35-88 keV), complemented by the higher Z element -bismuth- which is more efficient for stopping higher energy radiation (> 88 keV). The layering of the high Z element (nearest the body) also virtually eliminates secondary radiation/fluorescence from the outer layer.

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 elastomer matrix. This Dow-DuPont developed elastomer has the best balance of toughness, flexibility, durability and cracking resistance, and is more commonly used for the flexing components of running shoes and vibration pads. Separate layers, not laminated, give much better flexibility and drape/fit.

ENVIRONMENTAL BENEFITS

Strata+ 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 **6.2 kg/sq m** for 0.50 mm Pb equivalence (50-110 kV)
Protection 0.50, 0.35, and 0.25 mm Pb equivalence*

Direct Beam % Transmission

	50 kV	70 kV	90 kV	110 kV
0.50mm Pb	0.02%	0.65%	2.5%	4.4%
0.35mm Pb	0.2%	1.7%	5.0%	7.7%
0.25mm Pb	0.7%	3.6%	8.8%	12.7%

*Test Method: IEC 61331-1:2014, Inverse Broad-Beam (IBG); 50/70/90/110 kV
Tolerance: +/- 7% (thickness, weight, and mm Pb) per IEC 61331-1:2014



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