

VECTOR X

the single most significant advance in flexible radiation protection materials for medical environments in more than a generation.

Independent tests demonstrate that the technical advantages of VECTOR X approach in terms of safety, weight and comfort, enable protective aprons, skirts and accessories to provide up to 20 per cent reduction in absorbed dose than competitors' Lead composite materials, and 40% better performance than Lead-free alternatives at comparable LE.

VECTOR X takes advantage of the physics associated with using individual layers of specific materials to provide maximum attenuation by eliminating the effects of fluorescence and secondary scatter radiation with the low atomic weight metals used in Lead-free or low-Lead composites. Tested and certified for attenuation and Lead equivalence by the National Physical Laboratory (NPL) against a full range of kV (50kV to 150kV) using broad beam geometry, Edge Bilayer performs in accordance with all major standards, including IEC 61331-1:2014 and the German Standard DIN 6857-1.

No other Lead-free or low-Lead material passes IEC 61331-1:2014, DIN 6857-1 and ASTM F2547-06 at a lower weight.

- 1. Passes all major global standards, including the new IEC 61331-1 :2014**
- 2. The only radiation protection core material using true bilayer construction**
- 3. The only Lead-free and low-Lead radiation protection materials designed to provide increased protection against scatter radiation and absorbed dose**
- 3. Independently certified between 50kV-150kV**
- 4. Soft and subtle while retaining tensile strength of traditional products**

There's a problem with traditional Lead-free and Lead-composite products containing low atomic weight metals, either exclusively or in a mixed metal composite. Simply put, they cannot match the performance of traditional Lead products, due to the K-edge effect and resulting fluorescence at key levels of keV. Testing reveals that these materials can only pass previous standards when tested between 80kV and 100kV using narrow beam geometry. The result? Increased levels of absorbed dose received by the skin and organs that delivers a real, lasting and career-limiting impact on medical professionals. VECTOR X is designed to and for new standards, superior in concept, design and performance to deliver unparalleled comfort and flexibility. VECTOR X is the most complete and advanced form of radiation protection ever made.

"MATRIX" for X-Ray Protection Garments

100% halogen free
Washable at 95°C (tested over 100 times with excellent results)
Excellent hydrolysis resistance (>1 year in jungle test)
Excellent resistance to sterilisation (autoclave)
Excellent resistance to active chlorine and a broad spectrum of disinfectants.
Best chemical resistance of PU's on the market
Flame retardancy (BS7175, Crib 5)
Oeko-tex Standard 100

In general, medical index MATRIX cover resist extremely well to all kinds of disinfectants. Nevertheless, we advise to test the particular surface disinfectant in advance or to contact us in case of doubts. Generally, surface wiping can be done numerous times without problems with the following commonly used products:

- Alcohol based disinfectants like
Betadine (**Iodine**) (Betaisodona) Octenisept Octeniderm Kodan Tinktur forte
Betaseptic Mundipharma Sterillium classic pure Sterillium Virugard Desderman
pure
 - Phenol based disinfectants
 - Disinfectants based on quaternary ammonium
 - Active chlorine based disinfectants (> 100 times 5000 ppm)
- Please always keep in mind to rinse the cover extensively with pure water after using chlorine.
- Chloramine based disinfectants
 - Peroxyde based disinfectants