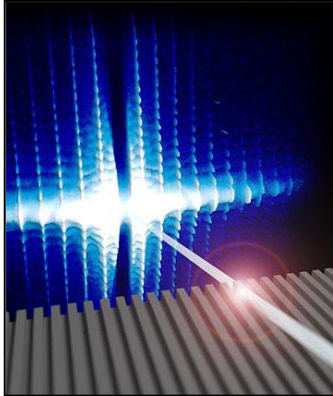


Techno-Aide Lead-Free Lightweight Aprons:



March 15, 2017

Today's medical imaging community is utilizing a lead-free alternative for their x-ray protection needs. Lightweight alloy alternatives are a necessity as an increased number of physicians and technologists are required to wear aprons for longer time periods. The weights of lead aprons and apparel have often caused discomfort, fatigue, and musculoskeletal problems due to the weight of wearing these garments for long periods of time. In addition to the market demand for lighter weighted garments, the necessity to change with today's "green movement" toward environmentally friendly materials, raises concerns of the hazardous waste implications of lead. When a significant amount of lead accumulates in the body, long term effects can develop due to the toxicity levels associated with lead. Therefore, lead is being replaced by lightweight materials at a higher rate than ever before.

In response to these heavy market demands, manufacturers began offering lead-free x-ray apparel solutions. These lead-free products have been met sometimes with skepticism, as the element "lead" has long been the front runner for protection against x-ray exposure. The element lead has a high mass attenuation coefficient for a wide energy range making it an effective element for the production of aprons worn by radiology personnel to minimize x-ray transmissions and to also protect from the unintentional exposure to radiation during imaging examinations.

With leading-edge advances in the sciences of radiation physics and plastic-filling processes, the production of lead-free aprons are able to compete with standard lead x-ray aprons offering the same levels of protection and yet at a lighter weight.



Techno-Aide's lead-free x-ray protection material made for protective apparel is a lead-free and environmentally-friendly material that has been formulated and engineered to be used for x-ray protection. The material incorporates a proprietary, balanced and patented formula of two x-ray attenuating elements: Tungsten and Antimony to protect from primary and harmful scatter beam wave lengths. While Tungsten & Antimony is more expensive than lead, the protective values and the innate light weight make these elements a prime choice to use in manufacturing protective garments.

Garments made of these elements are quality control ensured during every step of their production and conform to the world's strict IEC (61331-1) regulations on x-ray protection. They comply with DIN, JIS, as well as CE requirements (at both the 80 kV & 100 kV test levels, with 0.15/0.25 mID Cu filtration). Additionally, thanks to their ergonomically lead-free design, Techno-Aide LMG aprons are environmentally friendly and can either be recycled into new aprons or be easily incinerated or disposed of after the life of the apron has transpired. They can be discarded along with all other refuse since they contain no toxic heavy metals.

Techno-Aide LMG Lead-Free aprons are safer for patients and radiology personnel because they are lead-free and because they provide the same level of protection as antiquated "lead aprons". They should be the first choice of media protection when being worn by radiology personnel who work in long interventional radiology procedures to prevent back and body pain. These aprons are proven to function equal to traditional leaded aprons, given their proven attenuation properties and protection levels that are equal to lead against secondary scatter radiation.

QUICK FACTS:

- Lightest Weight
- Environmental Friendly complying to safe municipal landfill requirements
- Equal protection to standard "Lead" aprons
- Inspected and Certified by Radiological Labs to provide .5mm Pb equiv protection
- In compliance with IEC 61331:1994. Parts 1 & 3, per SGS (PPE Article 11) Certificate #US99/15166



**Manufactured in
Nashville, Tennessee USA**