

X-ray Screens

High resolution X-ray imaging for security and NDT applications

The excellent sensitivity and robustness of our phosphor based intensifying screens allow for reliable, high resolution X-ray imaging for mail, parcel, baggage and cargo inspection and for use in industrial NDT, health and safety, and quality control.



Primary specifications

Luminex

Gadox:Tb screens manufactured with high efficiency phosphors which make them particularly suitable for lens-coupled systems working in low light conditions. Peak emission in the green at 545nm and intrinsic efficiency 15%.

	Light Output ⁽¹⁾	MTF % @ 2lp/mm ⁽²⁾	MTF % @ 5lp/mm ⁽²⁾	Attenuation % ⁽²⁾	Decay to 10% μ s	Afterglow @ 20ms %
Ultrabright	205%	18	4	92	1,500	< 0.1%
Bright	175%	21	7	92	1,500	< 0.1%
Medium	170%	23	5	91	1,500	< 0.1%
Fine	129%	42	15	86	1,500	< 0.1%
UltraFine	70%	65	29	83	1,500	< 0.1%
UltraFine Plus	50%	76	45	76	1,500	< 0.1%
HyperFine	36%	85	67	-	1,500	< 0.1%

Rapidex

Gadox:Pr screens with rapid decay, specifically designed for fast linear array detectors and pencil-beam back-scatter systems. Peak emission in the green at 513nm and intrinsic efficiency 12%.

	Light Output ⁽¹⁾	MTF % @ 2lp/mm ⁽²⁾	MTF % @ 5lp/mm ⁽²⁾	Attenuation % ⁽²⁾	Decay to 10% μ s	Afterglow @ 20ms %
Bright	92%	16	4	97	7	< 0.1%
Medium	91%	19	5	94	7	< 0.1%
Fine	81%	32	9	89	7	< 0.1%

MeVex

Gadox:Tb screens manufactured to maximise system gain and provide high signal to noise ratio in MeV applications.

	Light Output ⁽¹⁾	MTF % @ 1lp/mm ⁽²⁾	MTF % @ 2lp/mm ⁽²⁾	Attenuation % ⁽²⁾	Decay to 10% μ s	Afterglow @ 20ms %
MeVex	242%	16	<10	98	1,500	< 0.1%

(1) Relative to Lanex Regular benchmark screen. X-Ray Source: 150kV Unfiltered

(2) X-Ray Source: 70kV

screen size	Scintacor screens can be cut to match the specific applications/requirements of the customer. The screens can be manufactured up to maximum dimensions of 100cm x 150cm.
thin strips	Scintacor screens can be precision cut into strips for use with linear detectors. These strips are particularly useful in high throughput applications.
substrates	Scintacor screens are manufactured on a Melinex white polyester material. Alternative substrates can be developed on demand to meet the needs of the customer.
construction	A wide range of mountings and support materials are available, such as aluminium, bakelite and perspex. Wall thickness tolerances can be agreed on demand.
protective layer	The screens can be manufactured to include an acetate layer to protect the integrity of the phosphor during transport and handling.



applications

Security applications

Constructed using a phosphor based scintillator provided on a range of materials. Our screens offer a high performance, reliable product for X-ray imaging in security applications.

NDT applications

Our phosphor based screens provide an optimised imaging solution for many different products within the non-destructive testing spectrum.

Our technology provides significant improvements in image resolution over alternative technologies, with unique non-burn properties providing a longer screen life with superior resolution and light output.

customised solutions

Our manufacturing flexibility allows us to fully customise the size and shape of our screens, we also have the capability to supply the screens as self-supporting sheets or mounted to a variety of materials.

With size and shape, emission spectra, decay time and X-ray absorption characteristics customisable to your requirements, we can design and manufacture each screen to suit your exact application and operational demands.

Scintacor

125 Cowley Road, Cambridge Commercial Park,
Cambridge, CB4 0DL, United Kingdom

t +44 (0)1223 223060 **e** info@scintacor.com

www.scintacor.com

Part of Tibidabo Scientific Industries

DS / XRAY-SCREENS / rev05 / Aug2023