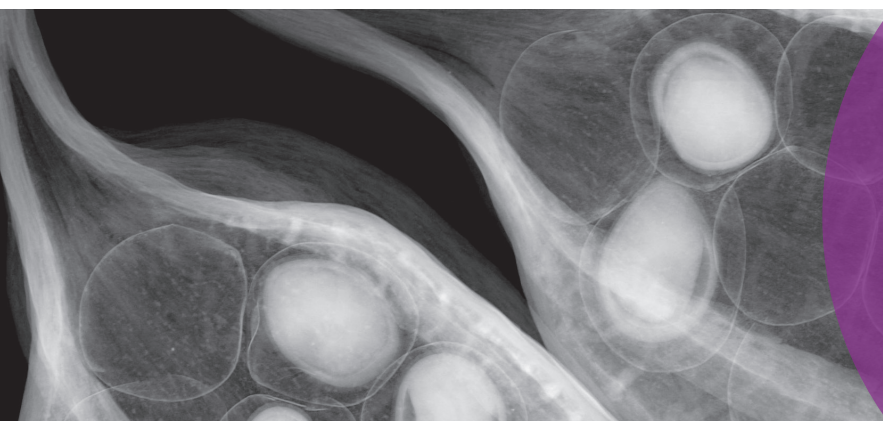


CsI X-ray Scintillators

Ultra-high resolution and light yield for superior detection efficiency

Our microcolumnar thallium doped caesium iodide (CsI:TI) is extensively used in the most demanding X-ray imaging applications for its superior performance compared to phosphor screens and single crystal scintillators.



typical applications

- Medical
- Dental
- In-line inspection
- In-line metrology
- Non-destructive testing (NDT)
- X-ray diffraction imaging (XRF)

customised solutions

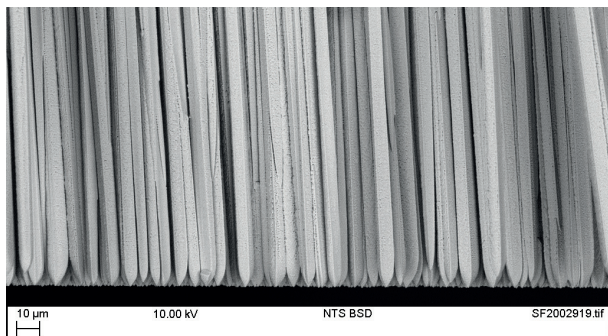
Resolution, sensitivity, size and shape are a few of the parameters that can be defined in the production of a customised CsI scintillator.

Substrate, coating thickness and reflector materials can be customised to target a specific performance.

Talk to our expert team to see how together we can deliver clever and custom scintillation components to meet our customer's needs.

features

- Ultra-high resolution
- Class leading environmental protection
- Fast response for high frame rate applications
- Low patient X-ray dose in medical applications
- Radiation hard for demanding NDT applications
- Low afterglow for dynamic image capture
- Maximised image area
- Suitable for CMOS, CCD, SiPM and TFT



Scintacor's micro-columnar CsI as seen in a Scanning Electron Microscope

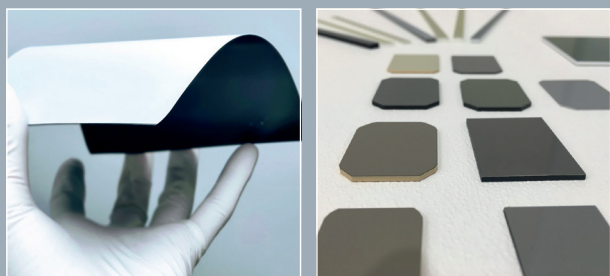
typical layers

Protective parylene layer(s): Maintains the quality of the scintillator performance.

Optional absorber / reflector layer: In conjunction with the substrate of choice, is used to fine tune performance to customer's needs.

Caesium iodide coating: Provides state-of-the-art scintillator with microcolumnar structure.

Substrate: Application specific.



flexibility

Size and Shape
Customised to your design.

Coating Thickness
Tailored performance to meet your application needs.

Quality Area
Up to 98% of the active area.

Absorber/Reflector Layers
Range of optional layers for customised imaging results.

class leading performance

CsI:TI has a needle like structure, which consists of an array of closed packed columns for ultra high resolution imaging.

superior output quality

Due to the slightly hygroscopic nature of CsI our coatings are protected against moisture ingress. This protection also provides a superior and robust finish to eliminate damage from transit and handling, maintaining image quality right to the edge of the scintillator, or sensor, area.

flexibility

Our CsI coatings can be applied to your exact size and shape requirements, on a wide range of substrates for both small and large volume production runs.

specification

Scintillator Type	CsI:(TI)
Scintillator Thickness	up to 600 µm
Substrate	fibre optic plate (FOP), aluminium, polymers
Relative Light Output	up to 250% at 400 µm
Resolution (%)	up to 30% MTF at 10 lp/mm at 125 µm
Active Area	fully customisable with minimal border region
Reflector/Absorber	for enhanced light output / resolution to optimise your application

Scintacor

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