

# **Csl Flexible X-ray Scintillators**

## Ultra-high resolution and light yield for superior detection efficiency

Our micro-columnar 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

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

## 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.

Flexible substrate reflectivity can be chosen to optimise performance for particular applications.

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
- Fast response for high frame rate applications
- Low patient x-ray dose in medical applications
- Low afterglow for dynamic image capture
- Maximised image area
- Suitable for CMOS, CCD, SiPM and TFT
- Flexible, non-ridgid substrate
- Affordable
- Short lead-time
- Low tooling costs





New flexible substrate scintillator

## typical layers

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

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

Substrate: flexible polymeric.

## 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 resu

## class leading performance

Csl:TI has a needle like structure, which consists of an array of closed packed columns.

## superior output quality

Due to the slightly hygroscopic nature of Csl 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 Csl 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 600um
Substrate	polymeric
Relative Light Output	up to 250% of Lanex Regular
Resolution (%)	up to 35% MTF at 10 lp/mm
Active Area	fully customisable with minimal border region

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