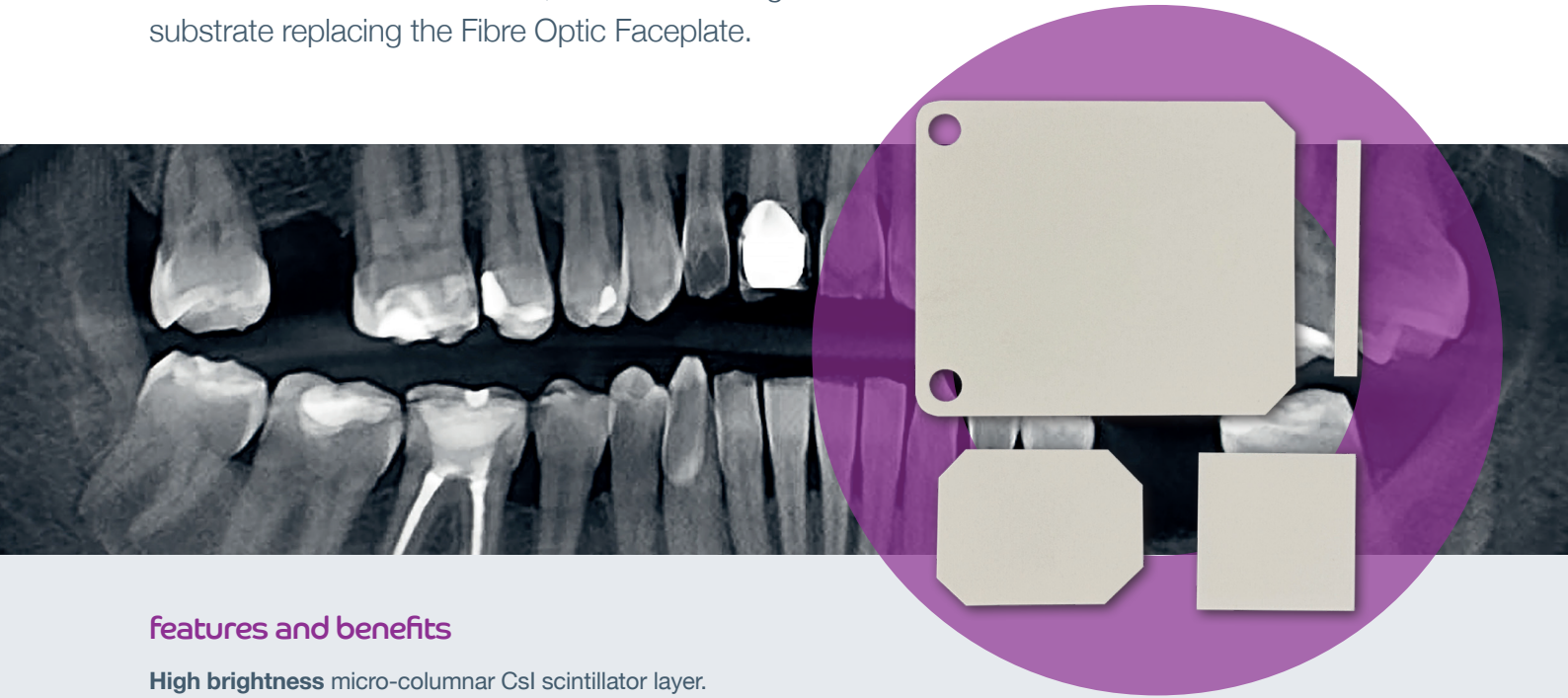


BrightForm Csl

High brightness, non-rigid Caesium Iodide (Csl) scintillators for X-ray imaging

Scintacor produces an affordable alternative to FOP-based Csl scintillators, with a thin non-glass substrate replacing the Fibre Optic Faceplate.



features and benefits

High brightness micro-columnar Csl scintillator layer.

Lightweight, non-rigid substrate desirable for large area and portable detectors.

Delamination resistant.

Customisable size and shape with edge-to-edge coating.

Choice of Csl thickness to balance brightness, SNR, and resolution; from thin layers used in intra-oral dental devices, to much thicker layers for high energy and high SNR x-ray applications.

High sensitivity solid state scintillator to reduce patient x-ray dose.

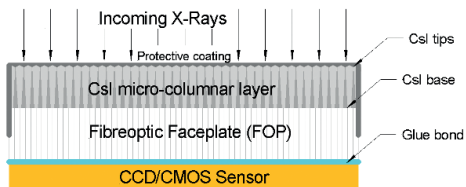
Low-cost PET substrate which is especially significant for large area detectors.

typical applications

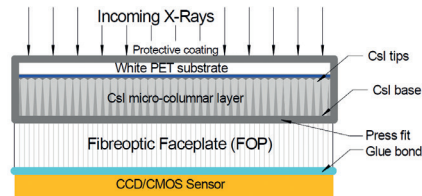
- Intra-oral dental
- Extra-oral such as jaw & head scanning
- Dental CT
- Fluoroscopy
- Mammography
- Scientific x-ray
- Pathology
- Electronics inspection (NDT)
- Security
- Dual energy systems

scintillator architecture

With **FOP-based** scintillators, the x-rays strike from the 'tips' side of the CsI layer and the emitted light is extracted from the opposite 'base' side of the layer, passing through the x-ray blocking FOP into the sensor chip.

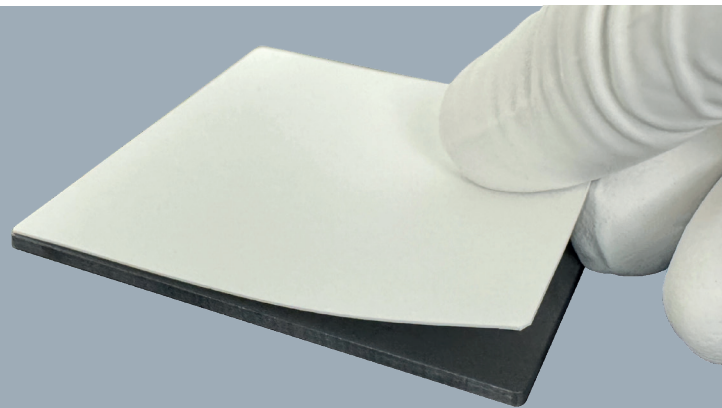


BrightForm CsI extracts light in the same orientation, but allows the FOP (if required) to be applied to the sensor independently, making visual inspection of the bond possible. The BrightForm CsI scintillator can be press fitted to the x-ray blocking FOP or directly onto the sensor.



simplified assembly

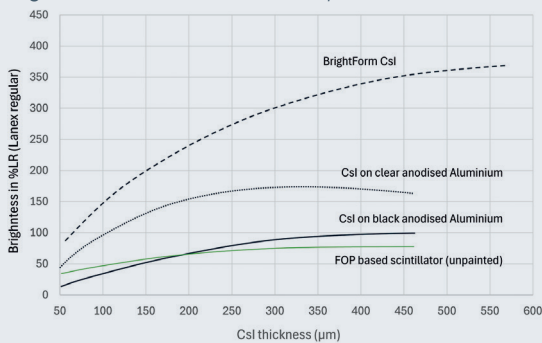
Alternatively, the FOP can be left out to reduce cost and weight, but with no x-ray blocking layer between the CsI and the sensor, incoming x-rays pass into the sensor much more readily.



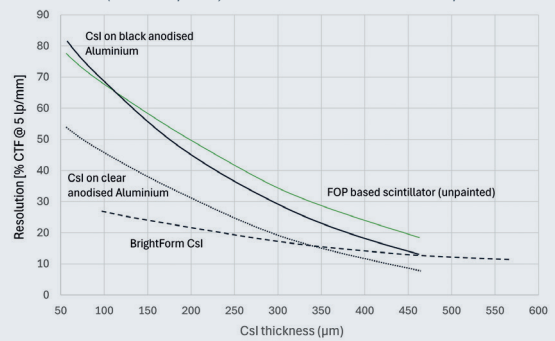
x-ray performance

The two graphs below show the typical CsI thickness dependence of the brightness and resolution for BrightForm CsI versus a typical FOP-based scintillator.

Brightness versus CsI thickness. 70kVp with 2.5mm Al filtration



Resolution (CTF at 5 lp/mm) versus CsI thickness. 60kVp with 2.5mm Al filtration



why Scintacor?

Scintacor has been making CsI scintillator products for many years, tuning the CsI structure for maximum performance and offering a large range of customised build parameters, allowing you to closely tailor the device to your specific application.

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