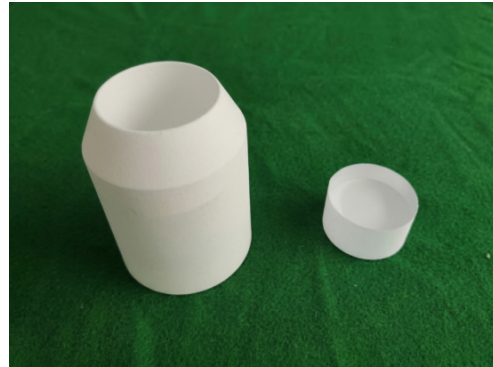


PLASTIC SCINTILLATORS & SCREENS

SP122 Plastic Scintillator

Product Brochure & Technical Reference

A ZnS(Ag)-coated SP101 plastic scintillator structure for the published low-energy photon detection applications. Specify the coating, substrate, panel geometry and readout arrangement.



Reference product image. Shown geometry is illustrative.

Material reference properties / options

Property	SP101 Substrate	ZnS(Ag) Coating
Material	SP101, polystyrene-based plastic scintillator	ZnS(Ag)
Density	1.023 g/cm ³	4.1 g/cm ³
Refractive index	1.58	Not specified
Light output reference	64%, reference standard to be confirmed	280%, reference standard to be confirmed
Maximum emission wavelength	423 nm	450 nm
Scintillation decay time	2.4 ns	200 ns
Operating temperature	Low-temperature use to -95 C may be reviewed	Low-temperature use to -95 C may be reviewed
Coating thickness	Not applicable	8-10 mg/cm ²

Reference values and options for selection. Confirm the material grade, geometry, test conditions and acceptance criteria for the quoted configuration.

PLASTIC SCINTILLATORS & SCREENS

Configuration & quotation

Define the component around your application

Application examples: Portable low-energy gamma detection instruments; Pedestrian radioactivity monitoring systems; Environmental and contamination survey devices

SP122 Structure and Design Notes

Layer / Item	Function	Design Notes
SP101 substrate	Polystyrene-based plastic scintillator base	Provides fast plastic scintillator response, 423 nm emission and mechanical support for the coated structure.
ZnS(Ag) coating	Coating layer for low-energy photon response	Standard coating thickness is 8-10 mg/cm ² . Coating density and uniformity should be specified for calibrated instruments.
Detection target	Low-energy gamma rays and related low-energy photon monitoring	Product data indicates response down to about 40 keV; final sensitivity depends on full detector design.
Readout method	PMT, SiPM, photodiode or custom optical module	Sensor spectral response should cover the 423 nm and 450 nm emission regions.
Panel format	Custom plate, strip, panel or shaped component	Active area, edge margin, thickness, mounting and housing should be defined in the drawing.
Calibration	Instrument-level response verification	Energy threshold, count-rate behavior and uniformity should be validated in the final detector assembly.

Properties of SP122 Plastic Scintillators

Property	SP101 Substrate	ZnS(Ag) Coating
Detection note	Fast plastic scintillator base	Low-energy gamma response down to about 40 keV according to product design

Prepare your quotation

RFQ Item	Information to Provide
Application	Portable radiation instrument, pedestrian monitor, low-energy gamma detector, survey device or custom detector assembly.
Radiation target	Gamma or X-ray energy range, threshold requirement, source type and measurement geometry.
Panel geometry	Total size, active area, thickness, shape, edge margin, mounting holes and drawing.
Material structure	SP101 substrate requirement, ZnS(Ag) coating thickness, coated side and coating area.
Optical readout	PMT, SiPM, photodiode, light guide, reflector, optical grease or coupling requirement.
Inspection requirement	Coating uniformity, visual inspection, response uniformity, reference source and report format if required.
Order information	Prototype quantity, batch quantity, packaging requirement and delivery schedule.

Reference values and options for selection. Confirm the material grade, geometry, test conditions and acceptance criteria for the quoted configuration.

Send drawings for engineering review

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Open product and inquiry page | Hangzhou, Zhejiang, China