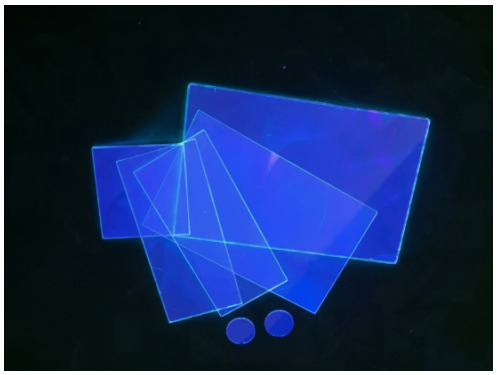
PLASTIC SCINTILLATORS & SCREENS

HZ-110 Thin Plastic Scintillator

Product Brochure & Technical Reference

A thin plastic scintillator sheet for beta-particle and charged-particle detector designs. Review active area, thickness variation, mechanical handling and the optical collection arrangement.



Reference product image. Shown geometry is illustrative.

Material reference properties / options

Property	Typical Value	Notes
Material	Polystyrene-based plastic scintillator	Manufactured from styrene monomers through thermal polymerization according to original product description.
Density	1.023 g/cm³	Consistent with common fast plastic scintillator data.
Refractive index	1.58	Useful for light-guide and optical coupling design.
Light output relative to anthracene	64%	Original product data; exact detector output depends on geometry and readout.
Peak emission	423 nm	Blue emission, compatible with many PMTs and blue-sensitive SiPMs.
Scintillation decay time	2.4 ns	Suitable for fast beta counting and timing applications.
Softening temperature	75 C	Detector design should avoid excessive temperature and mechanical stress.
Operating temperature	-40 to 55 C	Final assembly limit also depends on coupling material, reflector, adhesive and housing.

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

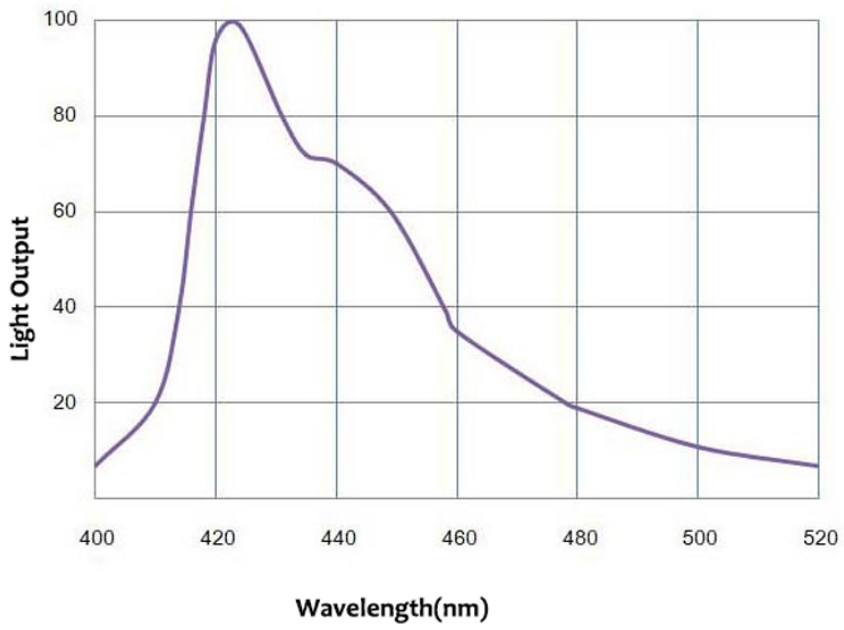
Product and inquiry: atrscintillator.com/products/hz-110-thin-plastic-scintillator/

PLASTIC SCINTILLATORS & SCREENS

Configuration & quotation

Define the component around your application

Emission spectrum



Reading the reference

Reference HZ-110 emission spectrum. Review the sensor response and optical collection together with sheet thickness, support and handling requirements.

Material reference for selection. Confirm final performance and test conditions for the quoted configuration.

HZ-110 Thin Sheet Thickness and Custom Dimensions

Specification	HZ-110 Information	What to Include in Your Request
Sheet thickness	Typical range: 0.25-1 mm	Required nominal thickness and acceptable variation.
Sheet dimensions	Custom specifications reviewed on request	Finished length, width or diameter, with a drawing for shaped parts.
Active area	Defined by the detector design	Sensitive area and any mounting or edge margins.
Dimensional tolerances	Confirmed during quotation	Thickness and outline tolerances required by your assembly.
Detector interface	Reviewed against the intended instrument	Entrance window, mechanical support and photosensor or light-guide arrangement.

Product and inquiry: atrscintillator.com/products/hz-110-thin-plastic-scintillator/

Properties of HZ-110 Plastic Scintillators

Property	Typical Value	Notes
Energy detection range	50 keV to 3 MeV	Listed product range; final threshold and efficiency depend on instrument design.
Common thickness	0.25-1 mm	Used to support beta detection while reducing gamma background interaction.

Prepare your quotation

RFQ Item	Information to Provide
Application	Surface contamination meter, beta detector, PM2.5 beta attenuation instrument, laboratory counter or custom detector assembly.
Radiation target	Beta source, charged particle type, energy range, threshold requirement and measurement geometry.
Panel geometry	Total size, active area, thickness, thickness tolerance, shape, edge margin, mounting holes and drawing.
Optical processing	Surface finish, edge polish, reflector, wrapping, light guide and optical coupling requirement.
Readout method	PMT, SiPM, photodiode, electronics threshold and detector window design.
Operating condition	Temperature range, humidity, cleaning method, vibration, housing stress and expected service environment.
Order information	Prototype quantity, batch quantity, inspection report requirement, packaging 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

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