

injection molded plastic scintillators

New Organic Scintillator Material

■ general description

Bicron is pleased to announce the production of injection molded scintillator made from a PolyVinylToluene (PVT) base. Intended for applications where a large number of identical pieces are required, this material offers a cost effective alternative to traditional cast sheets.

The use of PVT as the base plastic leads to an intrinsic light yield that is 15 to 20% greater than moldings made from polystyrene. Sizes up to 300mm x 300mm can be produced in thicknesses ranging from 3mm to 50mm.

The specifications below are for a formulation similar to BC-404 (Pilot B) which is well suited for use with green wavelength shifters. Other formulations are available on request. To obtain a detailed quotation, contact your Bicron representative with sizes, quantities, and specific application requirements.

■ preliminary specifications:

Light Output (% Anthracene)	60
Decay Time (ns)	3
Wavelength of Max Emission (nm)	410
Refractive index	1.58
Bulk attenuation length (cm)	100
Number of H atoms per cc, $\times 10^{22}$	5.21
Number of C atoms per cc, $\times 10^{22}$	4.74
Number of electrons per cc, $\times 10^{23}$	3.37
Density (g/cc)	1.03
Radiation Length (cm)	43

■ general handling

The scintillators are soluble in aromatic solvents, chlorine, acetone, etc. Insoluble in water, dilute acids, lower alcohols, silicone fluid, grease, & alkalis.

Manufacturer reserves the right to alter specifications.

2023(05-97)



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