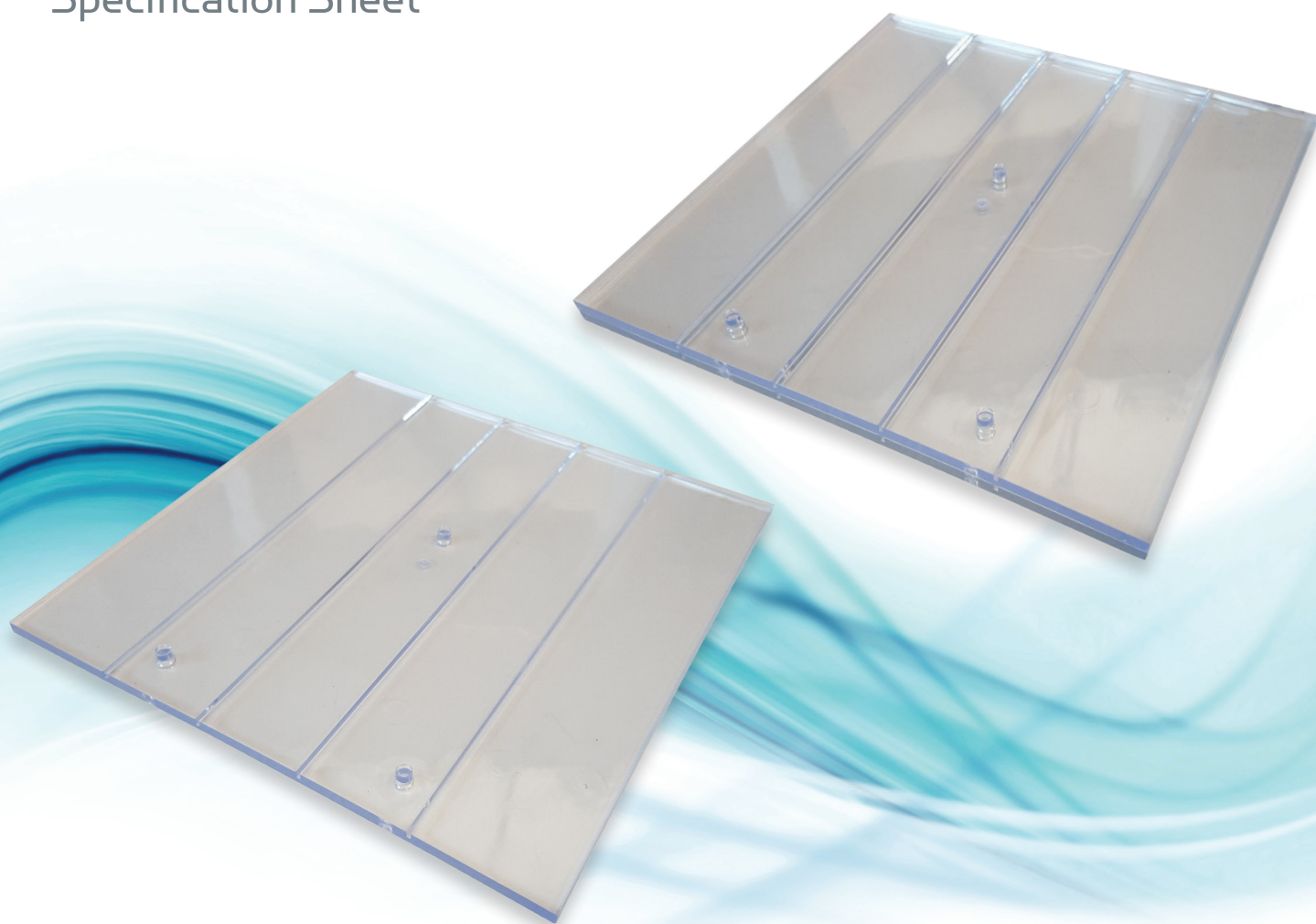


Plastic Scintillator Tiles for Modular Applications

Specification Sheet

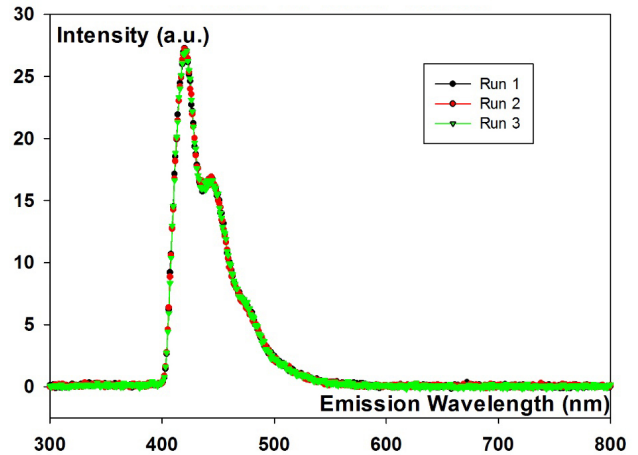


Plastic Scintillator Tiles for Modular Applications

Features

- p-Terphenyl and POPOP scintillation fluors to give optimal emission at 420 nm, matching most proprietary PMTs.
- Can be tiled in x, y and z planes to create for large area and modular plastic scintillator/detector applications.
- Muon detection efficiency of >60% (single tile thickness), >85% (double tile thickness), >97% (triple tile thickness).
- Gamma detection efficiencies (relative to 1x1" NaI):

Radionuclide	Primary Gamma Energy	Single Tile
⁵⁴ Mn	834.85	x2.55
⁵⁷ Co	122.06	x0.53
⁶⁰ Co	1173.23; 1332.49	x4.46
⁶⁵ Zn	1115.54	x2.49
¹⁰⁹ Cd	88.03	x0.14
¹³³ Ba	80.99; 302.85; 356.01	x0.22
¹³⁷ Cs	661.66	x1.13



Dimensions

- 200 (W) x 200 (L) x 5 (D) mm.
- Four 1.2 (W) x 2.5 (D) mm grooves for placement of optical fibres for light transmission.
- Mass: 210 g
- Density: 1.07 g/cm³

Material Specifications

- Polymer base: Polystyrene (PS).
- Refractive index: 1.59 (@633 nm).



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