

EJ-590/B10 ALUMINIZED MYLAR

EJ-590/B10 is an extremely thin polyester film coated on both sides with aluminum metal. The film is specifically fabricated for use in alpha and beta particle radiation detectors as a light-tight radiation window. Due to the extreme thinness of the material, a detector window is usually constructed with two closely laid layers of the film, thus achieving necessary light-tightness by virtue of the mis-alignment of any pinholes that may be present.

The film is typically supplied on rolls with a maximum width of 323mm (12¾ inch) and maximum length of 7,620mm (25 feet). It should be handled in a clean environment with care to avoid wrinkling and abrasion.

It may be cemented to support frames by using a variety of commercial adhesives including acrylics, silicones and epoxies. This is best done by carefully taping a flat piece of the film of perhaps 300mm x 300mm size to a clean, smooth surface such as a piece of glass plate. A thin adhesive is then applied to one side of the window frame, and the frame then is placed onto the film. This process is repeated to achieve the multiple mylar layers needed for light-tightness.

The film may be cleaned by rinsing with methanol or isopropyl alcohol or by gentle wiping with clean cotton soaked in alcohol.

SPECIFICATIONS

Thickness	2.0 micro meter (8.0 x 10 ⁻⁵ inch)
Density	0.29 mg / cm ²
Thickness of aluminum layer	1,000 angstroms per side

Transparency to Alpha and Beta Particles

- 2 layers will strip approximately 1 MeV of energy from an alpha particle
- 2 layers will strip approximately 20 keV of energy from a beta particle

STANDARD SIZES

- 320mm wide x 5,800mm long role
- 320mm wide x 7,500mm long role
- Available in widths up to 750mm



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