

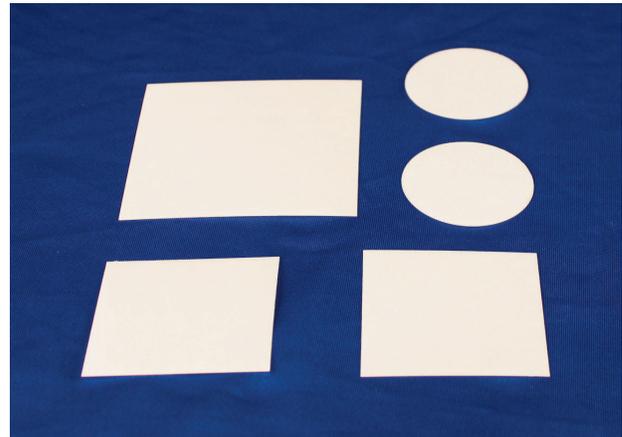
ALPHA DETECTION

EJ-440, EJ-442

These products consist of a very uniform deposit of blue-emitting P22 type silver activated zinc sulfide phosphor (ZnS:Ag) applied to one side of a backing material. They are specifically intended for alpha particle detection, and the phosphor layer density is sufficient to completely absorb common alpha particles such as those from ²⁴¹Am. Batch to batch uniformity of alpha sensitivity is constant within a $\pm 1.5\%$ range. The phosphor layer is smooth and sufficiently robust to withstand normal handling.

EJ-440 consists of ZnS:Ag phosphor applied to a clear polyester plastic sheet. The sheets are quite flexible and can easily be cut with scissors or a paper cutter.

EJ-442 consists of ZnS:Ag phosphor applied to one side of a thick, non-flexible support material. This product is custom-made to satisfy each customer's specific requirements. The most common support materials are acrylic plates, but metal support plates have also been used. These materials are very stable, and their shelf life at room temperature is at least two years.



EJ-440 STANDARD SIZES

Sheets	216 mm × 279 mm (8.5" × 11")
	305 mm × 305 mm (12" × 12")
Discs	25 - 50 mm diameter
Custom sizes are also available.	

EJ-442 STANDARD SIZES

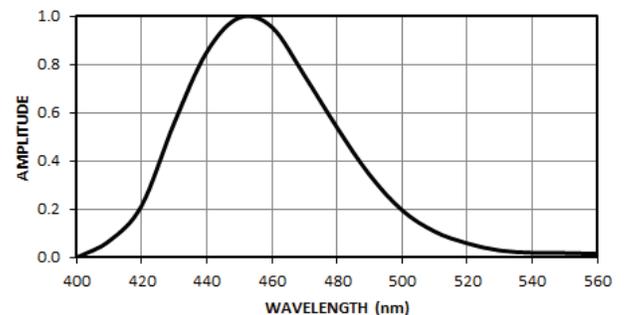
Acrylic Plate Thickness	1.5 - 5 mm
Maximum Size	300 mm × 300 mm
Custom sizes are also available.	

PROPERTIES	EJ-440 EJ-442
Light Output (% Anthracene)	300
Wavelength of Maximum Emission (nm)	450
Decay Time (ns)	200
Phosphor Density (mg/cm ²)	3.25 ± 0.25
EJ-440, Thickness of Polyester Film (mm)	0.25
EJ-440, Density of Polyester Film (mg/cm ²)	36

CHEMICAL COMPATIBILITY

The adhesive is soluble in common alcohols and other organic solvents. It is insoluble in water.

EJ-440 AND EJ-442 EMISSION SPECTRUM



Revision Date: May 2018



ELJEN TECHNOLOGY

1300 W. Broadway, Sweetwater, TX 79556

www.eljentechnology.com • eljen@eljentechnology.com

Toll Free (USA): (888)-800-8771 • Tel: (325)-235-4276 • Fax: (325) 235-0701

