

EJ-440 ZnS:Ag PHOSPHOR SHEETS FOR ALPHA COUNTING

This product consists of a very uniform deposit of blue-emitting P22 type silver activated zinc sulfide phosphor applied to one side of clear polyester plastic sheet. This is specifically intended for alpha particle detection, and the phosphor layer density is sufficient to completely absorb common alpha particles such as those from Am-241. 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. The sheets are quite flexible and can be easily cut with a scissors or paper cutter. The EJ-440 material has often been used to successfully replace the Product # ASP3 ZnS:Ag sheets formerly manufactured by the Wm. B. Johnson Company. EJ-440 is available in full-size sheets measuring 216mm x 279mm (8½" x 11") and is also supplied as precut discs. Discs sizes presently available: 44mm (1.732", 49mm (1.94") and 50.8mm (2.00") This material is very stable, and its shelf life at room temperature is at least two years.

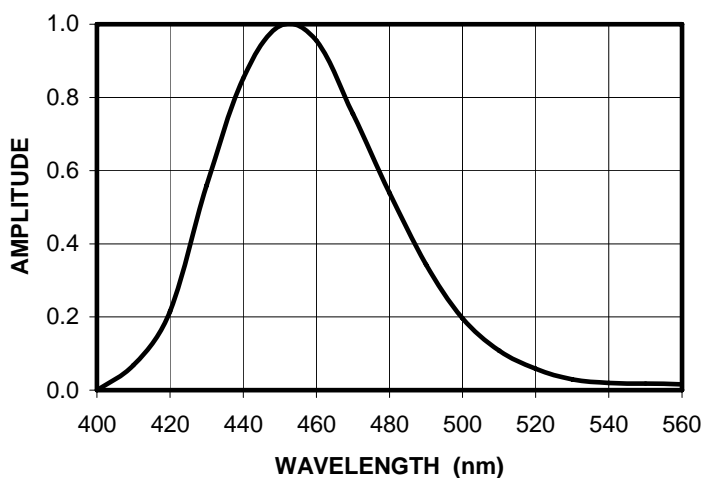
Eljen Technology also offers EJ-444 which consists of the same ZnS:Ag coating applied to thin plastic scintillator sheets typically 0.25mm thick for dual alpha-beta detection.

Physical and Scintillation Constants:

Light Output, % Anthracene.....	300
Wavelength of Max. Emission, nm	450
Decay Time, main component, ns	200
Phosphor Density, mg/sq.cm.	3.25
Phosphor Density range, mg/sq.cm.	± 0.25
Thickness of polyester film, mm	0.25
Density of the polyester film, mg/sq.cm.	36

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

EJ-440 EMISSION SPECTRUM



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