

EJ-440 ZnS:Ag PHOSPHOR SHEET

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. The sheets are specifically intended for alpha particle detection, and the phosphor layer density is sufficient to completely absorb common alpha particles such as those from ^{241}Am . They were developed and are manufactured in the laboratories of Eljen Technology in Sweetwater, Texas.

The phosphor layer is smooth and moderately robust to stand up to normal handling. The sheets are quite flexible and can be easily cut with a scissors or paper cutter.

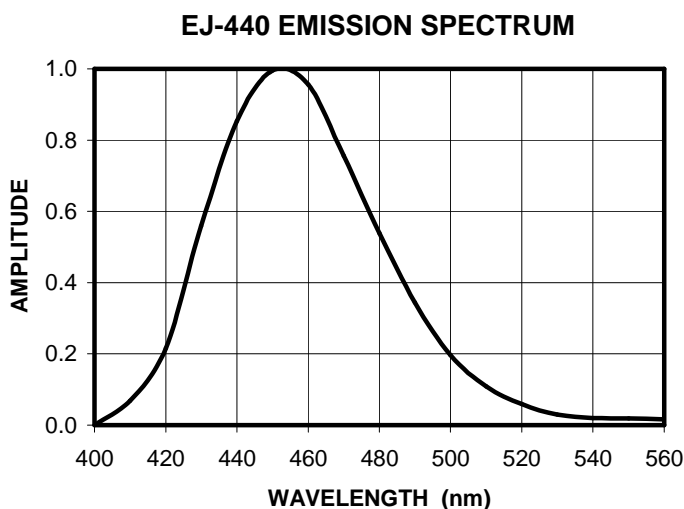
EJ-440 is available in full-size sheets measuring 216mm x 279mm (8½" x 11") and 305mm x 305mm (12" x 12"). A variety of custom precut discs are available from 38mm to 50mm diameter.

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

Physical and Scintillation Constants:

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| Light Output, % Anthracene | 300 |
| Wavelength of Max. Emission, nm | 450 |
| Decay Time, 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.



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