



SCINTILLATION PROPERTIES-RP-100

- ❖ **Light Output**, 50% of Anthracene:
 - ❖ **Base:** Polvinyltoluene
 - ❖ **Density:** 1.032
 - ❖ **Refractive Index (Nd):** 1.58
 - ❖ **Softening Point:** 70° C
- ❖ **Refractive Index at Wavelength or Max. Emission:** RP-100 = 1.60
 - ❖ **Coefficient. of Linear Expansion (<67°C):** Approx.. 9 x 10 E-5/cm/cm°C
 - ❖ **Vapor Pressure:** Negligible. Many be used in high vacuum.
 - ❖ **Light Output vs. Temperature:** Independent of temperature from -60°C to +20°C. At 60°C is 95% that at 20°C.

Plastic Scintillators offer high performance, ease of handling, mechanical stability at a relatively low cost. The versatility of plastic scintillators makes them the ideal choice for large area and specially shaped detectors.

EFFECTS OF LIQUIDS

The plastic scintillators are soluble in aromatic solvents, acetone, chlorinated solvents etc. They are unaffected by water, dilute acids, alkalis, lower alcohols, pure methyl, silicone grease or fluid.

Pictures shown above are for a unique SEAMLESS BALL OR SPHERE mated to a 5" diameter PMT for an OMNIDIRECTIONAL detector for Beta, Gamma and Neutron surveying and /or monitoring especially for Homeland Security Applications. Very desirable for scanning for contraband radioactive materials in Cargo Containers off-loaded from Merchant Ships .