



**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 .