

# BC-430

## Red-emitting Premium Plastic Scintillator

BC-430 emits in the red region which makes it ideal for use with silicon photodiodes and red-enhanced photomultiplier tubes.

This premium plastic scintillator is available as sheets, rods and thin films in the same range of sizes as all other SGCD organic scintillators.

### Scintillation Properties –

Light Output, %Anthracene .....	45
Rise Time, ns .....	3.2
Decay Time, ns .....	16.8
Pulse Width, FWHM, ns .....	17.7
Wavelength of Maximum Emission, nm .....	580

### Atomic Composition –

No. of H Atoms per cc .....	$5.23 \times 10^{22}$
No. of C Atoms per cc .....	$4.72 \times 10^{22}$
Ratio H:C Atoms .....	1.108
No. of Electrons per cc .....	$3.36 \times 10^{23}$

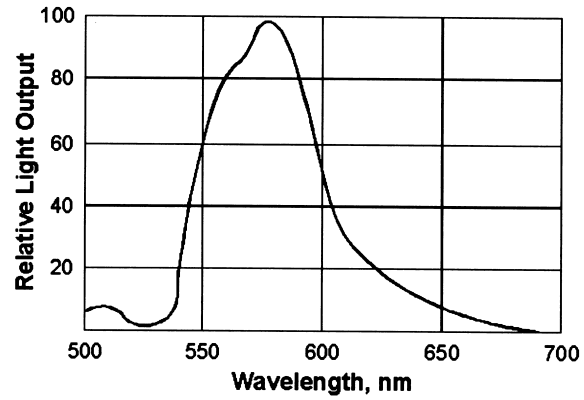
### General Technical Data –

Base .....	Polyvinyltoluene
Density .....	1.032 g/cc
Refractive Index .....	1.58
Coefficient of Linear Expansion .....	..... $7.8 \times 10^{-5}$ , below 67°C
Vapor Pressure .....	May be used in vacuum
Solubility .....	Soluble in aromatic solvents, chlorinated solvents, acetone, etc. Unaffected by water, dilute acids, lower alcohols, alkalis and pure silicone fluids or grease.
Light Output .....	At +60°C = 95% of that at +2°C. Independent of temperature from -60°C to +20°C
Softening Point .....	70°C

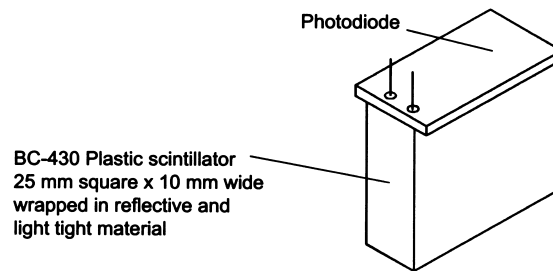


## BC-430 Red-emitting Plastic Scintillator

Emission Spectrum –



Application Example –



1CmX2.5CmX2.5Cm BC-430 (580nm)  
1CmX2Cm PIN DIODE

