



# Phosphor Information Leaflet

## GENERAL

Name	Yttrium phosphate bismuth
Chemical formula	$\text{YPO}_4:\text{Bi}^{3+}$
Application areas	UV-C radiation sources for polymer hardening and disinfection purposes

## OPTICAL PROPERTIES

Excitation maxima @	155 nm (8.01 eV), 175 nm (7.10 eV), 225 nm (5.52 eV)
Emission maximum @ 160 nm exc.	241 nm (5.14 eV)
Centroid wavelength	248 nm (4.98 eV)
Full width @ half emission maximum	15 nm
Lumen equivalent	-
CIE1931 chromaticity coordinates (x, y)	-
Band edge of host lattice	155 nm (8.00 eV)
Reflection @ 254 nm	90 %

## PHYSICAL PROPERTIES

Body colour	white
Density	4.17 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	1.76 (589 nm)
Mineral type	Xenotime
Crystal system	Tetragonal
Space group (#)	I 41/a m d Z (141)

