

Phosphor Information Leaflet

GENERAL

Name	Yttrium phosphate terbium
Chemical formula	YPO ₄ :Tb
Application areas	Plasma display panels

OPTICAL PROPERTIES

Excitation maxima @ 543 nm	181 nm (6.9 eV), 224 nm (5.5 eV)
Emission maximum @ 180 nm exc.	381 nm (3.3 eV), 415 nm (3.0 eV), 434 nm (2.9 eV), 488 nm (2.5 eV), 544 nm (2.3 eV), 586 nm (2.1 eV)
Centroid wavelength	489 nm (2.5 eV)
Full width @ half emission maximum	lines
Lumen equivalent	271 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.301; 0.419
Band edge of host lattice	8.6 eV
Reflection @ 180 nm	-
Decay time $\tau_{1/e}$	1.1 ms

PHYSICAL PROPERTIES

Body colour	
Density	2.87 g/cm ³
Refractive index	1.72
Mineral type	Xenotime-(Y)
Crystal system	tetragonal
Space group (#)	I 41/a m d z(141)

