

Phosphor Information Leaflet

GENERAL

Name	Yttrium borate terbium
Chemical formula	YBO ₃ :Tb
Application areas	Green pixel of PDPs

OPTICAL PROPERTIES

Excitation maxima @ 545 nm	235 nm (2.3 eV)
Emission maximum @ 160 nm exc.	488 nm (2.5 eV), 543 nm (2.3 eV),
Centroid wavelength	556 nm (2.2 eV)
Full width @ half emission maximum	lines
Lumen equivalent	527 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.338; 0.611
Band edge of host lattice	7 eV
Reflection @ 160 nm	-
Decay time $\tau_{1/e}$	3.5 ms

PHYSICAL PROPERTIES

Body colour	white
Density	4.5 g/cm ³
Refractive index	1.51
Mineral type	Pseudo-vaterite
Crystal system	hexagonal
Space group (#)	P6 ₃ /m (176)

