

Phosphor Information Leaflet

GENERAL

Name	Yttrium borate thulium
Chemical formula	YBO ₃ :Tm
Application areas	Blue Pixel of PDPs

OPTICAL PROPERTIES

Excitation maxima @ 345 nm	171 nm (7.3 eV)
Emission maximum @ 160 nm exc.	346 nm (3.6 eV), 456 nm (2.7 eV), 516 nm (2.4 eV)
Centroid wavelength	524 nm (2.4 eV)
Full width @ half emission maximum	lines
Lumen equivalent	123 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.144; 0.196
Band edge of host lattice	7 eV
Reflection @ 160 nm	-
Decay time $\tau_{1/e}$	-

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)

