



# Phosphor Information Leaflet

## GENERAL

Name	Yttrium borate europium
Chemical formula	YBO <sub>3</sub> :Eu <sup>3+</sup>
Application areas	PDP phosphor, Luminescent marker

## OPTICAL PROPERTIES

Excitation maxima @ 415 nm	172 nm (7.2 eV), 210 nm (5.9 eV)
Emission maximum @ 160 nm exc.	594 nm (2.1 eV), 613 nm (2.0 eV), 628 nm (2.0 eV), 710 nm (1.7 eV)
Centroid wavelength	631 nm (2.0 eV)
Full width @ half emission maximum	lines
Lumen equivalent	257 lm/W <sub>VIS.</sub>
CIE1931 chromaticity coordinates (x, y)	0.648; 0.352
Band edge of host lattice	7.0 eV
Reflection @ 160 nm	-
Decay time $\tau_{1/e}$	~ 8 ms

## PHYSICAL PROPERTIES

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

