



Phosphor Information Leaflet

GENERAL

Name	Yttrium gadolinium borate europium
Chemical formula	(Y,Gd)BO ₃ :Eu ³⁺
Application areas	Plasma display panels, Discharge lamps

OPTICAL PROPERTIES

Excitation maxima @	250 nm (4.96 eV)
Emission maximum @ 254 nm exc.	592 nm (2.09 eV)
Centroid wavelength	628 nm (1.97 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	267 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.649, 0.349
Band edge of host lattice	166 nm (7.5 eV)
Reflection @ 254 nm	75 %
Decay time $\tau_{1/e}$	4.5 ms

PHYSICAL PROPERTIES

Body colour	White
Density	4.5 g/cm ³
Particle size d ₅₀	10 μ m
Mineral type	Pseudo-vaterite
Crystal system	Orthorhombic
Space group (#)	C m c m (#63)

