



Phosphor Information Leaflet

GENERAL

Name	Barium silicate lead
Chemical formula	BaSi ₂ O ₅ :Pb ²⁺
Application areas	Tanning lamp, black light lamp

OPTICAL PROPERTIES

Excitation maxima @ 349 nm	192 nm (6.5 eV); 242 nm (5.1 eV)
Emission maximum @ 192 nm exc.	349 nm (3.6 eV)
Centroid wavelength	374 nm (3.3 eV)
Full width @ half emission maximum	40 nm
Lumen equivalent	4 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.186; 0.214
Band edge of host lattice	3.2 eV
Reflection @ 192 nm	7 %
Decay time τ _{1/e}	< 1 ms

PHYSICAL PROPERTIES

Body colour	White
Density	3.7 g/cm ³
Refractive index	1.6
Mineral type	Sanbornite
Crystal system	Orthorhombic
Space group (#)	Pnma (62)



