



Phosphor Information Leaflet

GENERAL

Name	Strontium tetraborate samarium
Chemical formula	$\text{SrB}_4\text{O}_7:\text{Sm}^{2+}$
Application	Security marking

OPTICAL PROPERTIES

Excitation maxima @	350 nm (3.54 eV), 420 nm (2.95 eV), 500 nm (2.48 eV) 685 nm (1.81 eV), 695 nm (1.78 eV), 704 nm (1.76 eV), 724 nm (1.71 eV), 733 nm (1.69 eV)
Emission maximum @ 418 nm exc.	715 nm (1.73 eV)
Centroid wavelength	Lines
Full width @ half emission maximum	6 lm/W
Lumen equivalent	0.651, 0.316
CIE1931 chromaticity coordinates (x, y)	177 nm, (7.00 eV)
Band edge of host lattice	86%
Reflection @ 418 nm	

PHYSICAL PROPERTIES

Body colour	White
Density	4.02 g/cm ³
Particle size d ₅₀	10 μm
Mineral type	
Crystal system	Orthorhombic
Space group (#)	P m n 21 (#31)



