



Phosphor Information Leaflet

GENERAL

Name	Strontium silicon oxynitride europium
Chemical formula	$\text{SrSi}_2\text{N}_2\text{O}_2:\text{Eu}^{2+}$
Application areas	Light emitting diodes
Optical transition	$[\text{Xe}]4f^7 (^8\text{S}_{7/2}) - [\text{Xe}]4f^65d^1$

OPTICAL PROPERTIES

Excitation maxima @ 542 nm monitored	395 nm (3.13 eV)
Emission maximum @ 395 nm exc.	542 nm (2.29 eV)
Centroid wavelength	557 nm (2.23 eV)
Full width @ half emission maximum	70 nm
Lumen equivalent	522 lm/W
CIE1931 chromaticity coordinates (x, y)	0.3515, 0.6062
Band edge of host lattice	6.5 eV
Reflection @ 254 nm	13%
Decay time $\tau_{1/e}$	~ 0.9 μs

PHYSICAL PROPERTIES

Body colour	Yellow/Green
Density	3.77 g/cm ³
Refractive index (at λ)	~ 1.9
Mineral type	-
Crystal system	Triclinic
Space group (#)	P1 (1)



