



Phosphor Information Leaflet

GENERAL

Name	Strontium dodecaaluminate samarium
Chemical formula	$\text{SrAl}_{12}\text{O}_{19}:\text{Sm}^{3+}$
Application areas	Security marking, NIR imaging

OPTICAL PROPERTIES

Excitation maxima @	250 nm (4.96 eV), 345 nm (3.59 eV), 376 nm (3.30 eV), 403 nm (3.08 eV)
Emission maximum @ 254 nm exc.	560 nm (2.21 eV), 592 nm (2.09 eV), 640 nm (1.94 eV), 702 nm (1.77 eV)
Centroid wavelength	632 nm (1.96 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	278 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.584, 0.413
Band edge of host lattice	7.8 eV
Reflection @ 403 nm	88 %

PHYSICAL PROPERTIES

Body colour	White
Density	4.02 g/cm ³
Refractive index (at λ)	
Mineral type	Pseudo magnetoplumbite
Crystal system	Hexagonal
Space group (#)	P 63/m m c (#194)

