



Phosphor Information Leaflet

GENERAL

Name	Strontium aluminate europium dysprosium
Chemical formula	$\text{SrAl}_2\text{O}_4:\text{Eu,Dy}$
Application areas	Afterglow paints, decoration paints
Optical transition	$[\text{Xe}]4f^7(^8\text{S}_{7/2}) - [\text{Xe}]4f^65d^1$

OPTICAL PROPERTIES

Excitation maxima @	280 nm (4.4 eV), 350 nm (3.5 eV)
Emission maximum @ 254 nm exc.	520 nm (2.4 eV)
Centroid wavelength	540 nm (2.3 eV)
Full width @ half emission maximum	80 nm
Lumen equivalent	440 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.277, 0.572
Band edge of host lattice	6.5 eV
Reflectance @ 254 nm	15%

PHYSICAL PROPERTIES

Body colour	Greenish-yellow
Density	3.56 g/cm ³
Refractive index (at λ)	1.70
Mineral type	Stuffed Tridymite
Crystal system	Monoclinic
Space group (#)	P2 ₁ (4)



