



Phosphor Information Leaflet

GENERAL

Name	Yttrium silicate europium
Chemical formula	$Y_2SiO_5:Eu^{3+}$
Application areas	Cathode ray tubes

OPTICAL PROPERTIES

Excitation maxima @	243 nm (± 5.1 eV), 397 nm (± 3.1 eV)
Emission maximum @ 160 nm exc.	613 nm (± 2.0 eV), 704 nm (± 1.8 eV)
Centroid wavelength	634 nm (± 1.9 eV)
Full width @ half emission maximum	-
Lumen equivalent	235 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.650, 0.343
Band edge of host lattice	6.4 eV
Reflection @ 254 nm	30 %
Decay time $\tau_{1/e}$	~ 1 ms

PHYSICAL PROPERTIES

Body colour	White
Density	4.5 g/cm ³
Refractive index (at λ)	1.82
Mineral type	-
Crystal system	Monoclinic
Space group (#)	C12/c1 (15)

