



Phosphor Information Leaflet

GENERAL

Name	Potassium silicon fluoride manganese
Chemical formula	$K_2SiF_6:Mn^{4+}$
Application areas	Light emitting diodes

OPTICAL PROPERTIES

Excitation maxima @ 632 nm monitored	456 nm (2.72 eV)
Emission maximum @ 405 nm exc.	631 nm (1.96 eV)
Centroid wavelength	631 nm (1,96 eV)
Full width @ half emission maximum	2 nm
Lumen equivalent	187 lm/W
CIE1931 chromaticity coordinates (x, y)	0.6922, 0.3051
Band edge of host lattice	5.6 eV
Reflection @ 254 nm	13%
Decay time $\tau_{1/e}$	~ 7 ms

PHYSICAL PROPERTIES

Body colour	Yellow
Density	2.71 g/cm ³
Refractive index (at λ)	1.34 (@590nm)
Mineral type	Hieratite
Crystal system	Cubic
Space group (#)	Fm-3m (225)

