



Phosphor Information Leaflet

GENERAL

Name	Calcium magnesium catena-silicate europium
Chemical formula	$\text{CaMgSi}_2\text{O}_6:\text{Eu}^{2+}$
Application areas	Optical brightener

OPTICAL PROPERTIES

Excitation maxima @	250 to 400 nm (4.96 to 3.10 eV)
Emission maximum @ 340 nm exc.	450 nm (2.76 eV)
Centroid wavelength	456 nm (2.72 eV)
Full width @ half emission maximum	40 nm
Lumen equivalent	50 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.149, 0.040
Band edge of host lattice	8.0 eV
Reflection @ 340 nm	32 %

PHYSICAL PROPERTIES

Body colour	Pale yellow
Density	3.29 g/cm ³
Refractive index (at λ)	1.75 (589 nm)
Mineral type	Diopside
Crystal system	Monoclinic
Space group (#)	C 1 21/c 1 (#15)

