



Phosphor Information Leaflet

GENERAL

Name	Magnesium Germanium Oxide Fluoride Manganese
Chemical formula	$Mg_{14}Ge_5O_{24}:Mn^{4+}$
Application areas	Fluorescent lamps (Butcher lamps)

OPTICAL PROPERTIES

Excitation maxima @	310 nm (\pm 4.00 eV) and 418 nm (\pm 2.97 eV)
Emission maximum @ 160 nm exc.	658 nm (\pm 1.88 eV)
Centroid wavelength	655 nm
Full width @ half emission maximum	Line
Lumen equivalent	80 lm/W _{opt}
CIE1931 chromaticity coordinates (x, y)	0.714, 0.285
Band edge of host lattice	-
Reflection @ 254 nm	15%
Decay time 1/e	

PHYSICAL PROPERTIES

Body colour	Pale yellow
Density	3.87 g/cm ³
Refractive index (at λ)	-
Mineral type	-
Crystal system	Orthorhombic
Space group (#)	Pbam (55)

