



Phosphor Information Leaflet

GENERAL

Name	Magnesium sulfide europium
Chemical formula	MgS:Eu ²⁺
Application areas	Cathode ray tubes, cathode ray lamps

OPTICAL PROPERTIES

Excitation maxima @ 587	264 nm (\pm 4.7 eV), 464 nm (\pm 2.7 eV), 502 nm (\pm 2.5 eV)
Emission maximum @ 264 nm exc.	587 nm (\pm 2.1 eV)
Centroid wavelength	594 nm (\pm 2.1 eV)
Full width @ half emission maximum	37 nm
Lumen equivalent	477 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.566, 0.433
Band edge of host lattice	276 nm (4.5 eV)
Reflection @ 254 nm	13 %
Decay time 1/e	1 ms

PHYSICAL PROPERTIES

Body colour	Yellow
Density	2.7 g/cm ³
Refractive index (at λ)	-
Mineral type	Halite
Crystal system	Cubic
Space group (#)	Fm-3m (225)

