



Phosphor Information Leaflet

GENERAL

Name	Zinc sulfide manganese
Chemical formula	ZnS:Mn ²⁺
Application areas	Cathode ray tubes, cathode ray lamps, Inorganic EL lamps

OPTICAL PROPERTIES

Excitation maxima @	300 nm (\pm 4.1 eV)
Emission maximum @ 450 nm exc.	610 nm (\pm 2.0 eV),
Centroid wavelength	634 nm (\pm 2.0 eV)
Full width @ half emission maximum	97 nm
Lumen equivalent	263 lm/W
CIE1931 chromaticity coordinates (x, y)	0.597, 0.401
Band edge of host lattice	350 nm (\pm 3.5 eV)
Reflection @ 254 nm	9%
Decay time $\tau_{1/e}$	~ 2 ms

PHYSICAL PROPERTIES

Body colour	Pinkish white
Density	4.1 g/cm ³
Refractive index (at λ)	
Mineral type	Sphalerite
Crystal system	Cubic
Space group (#)	F-43m (216)

