



Phosphor Information Leaflet

GENERAL

Name	Lutetium phosphat thulium
Chemical formula	$\text{LuPO}_4:\text{Tm}^{3+}$
Application areas	Plasma displays (blue pixel)

OPTICAL PROPERTIES

Excitation maxima @ 450.5 nm em.	361.5 nm (3.43eV)
Emission maximum @362 nm exc.	450 nm (2.76 eV)
Centroid wavelength	507 nm (2.4 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	54 lm/W
CIE1931 chromaticity coordinates (x, y)	0.168; 0.053
Band edge of host lattice	138 nm (9.0 eV)
Reflection @ 260 nm	74%

PHYSICAL PROPERTIES

Body colour	white
Density	6.53 g/cm ³
Refractive index (at λ)	1.68 (520.8 nm)
Mineral type	Xenotime
Crystal system	tetragonal
Space group (#)	$I4_1/am d Z$ (141)

