



Phosphor Information Leaflet

GENERAL

Name	Yttrium aluminate garnet terbium
Chemical formula	$Y_3Al_5O_{12}:Tb^{3+}$
Application areas	Projection TV sets

OPTICAL PROPERTIES

Excitation maxima @	268 nm (4.63 eV), 322 nm (3,85 eV)
Emission maximum @ 268 nm exc.	381 nm (3.25 eV), 416 nm (2.98 eV), 486 nm (2.55 eV), 542 nm (2.29 eV), 591 nm (2.10 eV), 627 nm (1.98 eV), 768 nm (1.61 eV)
Centroid wavelength	624 nm (1.99 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	217 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.342, 0.495
Band edge of host lattice	170 nm (7.29 eV)
Reflection @ 268 nm	18 %

PHYSICAL PROPERTIES

Body colour	White
Density	4.56 g/cm ³
Refractive index (at λ)	1.80 (589.3 nm)
Mineral type	Garnet
Crystal system	Cubic
Space group (#)	I a -3 d (230)

