



## Phosphor Information Leaflet

### GENERAL

Name	Terbium aluminium garnet cerium
Chemical formula	Tb <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce <sup>3+</sup>
Application areas	Light emitting diodes

### OPTICAL PROPERTIES

Excitation maxima @	287 nm (4.32 eV), 335 nm (3.70 eV), 372 nm (3.33 eV), 378 nm (3.28 eV), 450 nm (2.76 eV)
Emission maximum @ 450 nm exc.	570 nm (2.18 eV)
Centroid wavelength	600 nm (2.07 eV)
Full width @ half emission maximum	125 nm
Lumen equivalent	409 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.475, 0.514
Band edge of host lattice	190 nm (6.5 eV)
Reflection @ 450 nm	12 %

### PHYSICAL PROPERTIES

Body colour	Yellow
Density	6.18 g/cm <sup>3</sup>
Refractive index (at λ)	1.86 (@ 590 nm)
Mineral type	Garnet
Crystal system	Cubic
Space group (#)	I a -3 d (230)

