



# Phosphor Information Leaflet

## GENERAL

Name	Lutetium aluminate garnet praseodymium
Chemical formula	$\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Pr}^{3+}$
Application areas	UV-A radiation sources, scintillator crystals

## OPTICAL PROPERTIES

Excitation maxima @	283 nm ( $\Delta$ 4.38 eV)
Emission maximum @ 283 nm exc.	311 nm ( $\Delta$ 3.99 eV)
Centroid wavelength	338 nm ( $\Delta$ 3.67 eV)
Full width @ half emission maximum	30 nm
Lumen equivalent	-
CIE1931 chromaticity coordinates (x, y)	-
Band edge of host lattice	160 nm (7.75 eV)
Reflection @ 283 nm	10 %
Decay time $\tau_{1/e}$	25 ns

## PHYSICAL PROPERTIES

Body colour	Pale green
Density	6.70 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	1.84 (589.3 nm)
Mineral type	Garnet
Crystal system	Cubic
Space group (#)	I a -3 d (230)

