



Phosphor Information Leaflet

GENERAL

Name	Yttrium aluminium garnet samarium
Chemical formula	$Y_3Al_5O_{12}:Sm^{3+}$
Application areas	Luminescent marker

OPTICAL PROPERTIES

Excitation maxima @	404 nm (3.07 eV)
Emission maximum @ 404 nm exc.	616 nm (2.01 eV)
Centroid wavelength	624 nm (1.99 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	297 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.613, 0.386
Band edge of host lattice	170 nm (7.29 eV)
Reflection @ 405 nm	77 %

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)

