



# Phosphor Information Leaflet

## GENERAL

Name	Lithium yttrium fluoride praseodymium
Chemical formula	LiYF <sub>4</sub> :Pr <sup>3+</sup>
Application areas	Laser ceramics

## OPTICAL PROPERTIES

Excitation maxima @	164 nm (7.56 eV), 185 nm (6.70 eV)
Emission maximum @ 160 nm exc.	219 nm (5.66 eV), 228 nm (5.44 eV), 254 nm (4.88 eV), 479 nm (2.59 eV), 607 nm (2.04 eV)
Centroid wavelength	292 nm (4.25 eV)
Full width @ half emission maximum	15 nm
Lumen equivalent	153 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.374, 0.284
Band edge of host lattice	10.6 eV
Reflection @ 443 nm	84 %

## PHYSICAL PROPERTIES

Body colour	White
Density	3.97 g/cm <sup>3</sup>
Refractive index (at λ)	1.44 (1060 nm)
Mineral type	-
Crystal system	Tetragonal
Space group (#)	I 41/a Z (#88)

