



## Phosphor Information Leaflet

### GENERAL

Name	Zinc hexafluoro germanate manganese
Chemical formula	ZnGeF <sub>6</sub> :Mn <sup>4+</sup>
Application areas	Phosphor converted LEDs (warm-white)
Optical transition	[Ar]3d <sup>3</sup> ( <sup>4</sup> A <sub>2</sub> ) - [Ar]3d <sup>3</sup> ( <sup>4</sup> T <sub>2</sub> )

### OPTICAL PROPERTIES

Excitation maxima @ 630 nm	475 nm (2.61 eV)
Emission maximum @ 470 nm exc.	629 nm (1.97 eV)
Centroid wavelength	628 nm (1.97 eV)
Full width @ half emission maximum	4 nm (0.02 eV)
Lumen equivalent	208 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.691, 0.308
Band edge of host lattice	-
Reflection @ 470 nm	15 %
Decay time $\tau_{1/e}$	165 $\mu$ s (15%), 433 $\mu$ s (85%)

### PHYSICAL PROPERTIES

Body colour	Brownish-white
Density	2.3 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	
Mineral type	
Crystal system	Trigonal
Space group (#)	R-3 h (148)



