



## Phosphor Information Leaflet

### GENERAL

Name	Potassium heptafluoro tantalate manganese
Chemical formula	$K_2TaF_7:Mn^{4+}$
Application areas	Red emitting phosphor for warm-white LEDs

### OPTICAL PROPERTIES

Excitation maxima @ 628 nm em.	266 nm (4.66 eV), 364 nm (3.41 eV), 473.5 nm (2.62 eV)
Emission maximum @ 474 nm exc.	628 nm (1.97 eV)
Centroid wavelength	626 nm
Full width @ half emission maximum	Lines
Lumen equivalent	224 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.690, 0.310
Band edge of host lattice	249 nm (4.99 eV) DFT calculated
Reflection @ 474 nm	60 %

### PHYSICAL PROPERTIES

Body colour	Yellowish
Density	4.13 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	1.32 (590 nm) DFT calculated
Mineral type	-
Crystal system	Monoclinic
Space group (#)	P12 <sub>1</sub> /c1(#14)

