



## Phosphor Information Leaflet

### GENERAL

Name	Hydrogen potassium tin fluoride manganese
Chemical formula	$\text{HK}_3\text{SnF}_8:\text{Mn}^{4+}$
Application areas	Phosphor converted LEDs (warm-white)
Optical transition	$[\text{Ar}]3d^3 (^4A_2) - [\text{Ar}]3d^3 (^4T_2)$

### OPTICAL PROPERTIES

Excitation maxima @ 642 nm	472 nm (2.6 eV)
Emission maximum @ 474 nm exc.	627 nm (2.0 eV)
Centroid wavelength	624 nm (2.0 eV)
Full width @ half emission maximum	lines
Lumen equivalent	236 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.686; 0.313
Band edge of host lattice	-
Reflection @ 474 nm	57 %
Decay time $\tau_{1/e}$	9.7 ms

### PHYSICAL PROPERTIES

Body colour	orange
Density	3.07 g/cm <sup>3</sup>
Refractive index	
Mineral type	-
Crystal system	monoclinic
Space group (#)	C12/c1 (15)



