



Phosphor Information Leaflet

GENERAL

Name	Strontium scandate europium
Chemical formula	$\text{SrSc}_2\text{O}_4:\text{Eu}^{2+}$
Application areas	Red persistent phosphor, luminescent marker

OPTICAL PROPERTIES

Excitation maxima ($\lambda_{Em} = 720 \text{ nm}$)	520 nm (2.38 eV)
Emission maximum ($\lambda_{Ex} = 525 \text{ nm}$)	687 nm (1.80 eV)
Centroid emission wavelength	702 nm (1.77 eV)
FWHM	103 nm (2098 cm^{-1})
Lumen equivalent	25 lm/W
CIE1931 chromaticity coordinates (x y)	(0.713 0.287)
Average luminescence lifetime $\tau_{1/e}$	197 to 371 s
$T_{1/2}$	360 K

PHYSICAL PROPERTIES

Body colour	light pink to red violet
Density	4.59 g/cm^3
Refractive index (n_D)	
Band gap	$> 5.5 \text{ eV}$
Crystal system	orthorhombic
Space group	$Pnam$

