



## Phosphor Information Leaflet

### GENERAL

Name	Gadolinium ditungstate samarium
Chemical formula	$Gd_2W_2O_9:Sm^{3+}$
Application areas	Security marking

### OPTICAL PROPERTIES

Excitation maxima @	254 nm (4.88 eV), 404 nm (3.07 eV)
Emission maximum @ 404 nm exc.	563 nm (2.20 eV), 594 nm (2.09 eV), 644 nm (1.93 eV)
Centroid wavelength	629 nm (1.97 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	249 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.610, 0.385
Band edge of host lattice	3.7 eV
Reflection @ 300 nm	20 %

### PHYSICAL PROPERTIES

Body colour	Beige
Density	7.82 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	
Mineral type	
Crystal system	Monoclinic
Space group (#)	P 1 21/c 1 (#14)

