



Phosphor Information Leaflet

GENERAL

Name	Terbium molybdenum oxide samarium
Chemical formula	Tb ₂ Mo ₃ O ₁₂ :Sm ³⁺
Application areas	

OPTICAL PROPERTIES

Excitation maxima @ 600.5 nm	365 nm (3.40 eV), 377 nm (3.29 eV), 405 nm (3.06 eV); 487 nm (2.55 eV)
Emission maximum @ 487 nm exc.	600 nm (2.07 eV); 646 nm (1.92 eV)
Centroid wavelength	628 nm (1.97 eV)
Full width @ half emission maximum	6 nm
Lumen equivalent	256 lm/W
CIE1931 chromaticity coordinates (x, y)	0.613; 0.386
Band edge of host lattice	340 nm (3.6 eV)
Reflection @ 487 nm	86 %

PHYSICAL PROPERTIES

Body colour	white
Density	4.64 g/cm ³
Refractive index	1.85
Mineral type	
Crystal system	orthorhombic
Space group (#)	<i>P b a 2</i> (32)

