



Phosphor Information Leaflet

GENERAL

Name	Calcium aluminate europium neodymium
Chemical formula	CaAl ₂ O ₄ :Eu, Nd
Application areas	Afterglow pigments, decoration paints, emergency exit illumination
Optical Transition	[Xe]4f ⁷ (⁸ S _{7/2}) – [Xe]4f ⁶ 5d ¹

OPTICAL PROPERTIES

Excitation maxima @ 440 nm em.	260 nm (4.77 eV), 325 nm (3.82 eV)
Emission maximum @ 260 nm exc.	440 nm (2.82 eV)
Centroid wavelength	452 nm (2.74 eV)
Full width @ half emission maximum	54 nm
Lumen equivalent	49 lm/W
CIE1931 chromaticity coordinates (x, y)	0.153, 0.045
Band edge of host lattice	5.78 eV
Reflectance @ 260 nm	15%

PHYSICAL PROPERTIES

Body colour	White
Density	2.9 g/cm ³
Refractive index	1.643
Mineral type	Krotite
Crystal system	Monoclinic
Space group (#)	P2 ₁ /c (14)

