



Phosphor Information Leaflet

GENERAL

| | |
|-------------------|--------------------------|
| Name | Scandium borate europium |
| Chemical formula | ScBO ₃ :Eu |
| Application areas | Luminescent marker |

OPTICAL PROPERTIES

| | |
|---|-----------------------------------|
| Excitation maxima @ 590 nm | 175 nm (7.1 eV), |
| Emission maximum @ 160 nm exc. | 588 nm (2.1 eV), 595 nm (2.1 eV), |
| Centroid wavelength | 617 nm (2.0 eV) |
| Full width @ half emission maximum | lines |
| Lumen equivalent | 331 lm/W _{opt.} |
| CIE1931 chromaticity coordinates (x, y) | 0.596; 0.391 |
| Band edge of host lattice | - |
| Reflection @ 160 nm | - |
| Decay time $\tau_{1/e}$ | ~ 3 ms |

PHYSICAL PROPERTIES

| | |
|------------------|-----------------------|
| Body colour | white |
| Density | 3.5 g/cm ³ |
| Refractive index | 1.780, 1.872 |
| Mineral type | Calcite |
| Crystal system | trigonal |
| Space group (#) | R-3c h (167) |

