



## Phosphor Information Leaflet

### GENERAL

|                   |                                |
|-------------------|--------------------------------|
| Name              | Lutetium phosphat dysprosium   |
| Chemical formula  | $\text{LuPO}_4:\text{Dy}^{3+}$ |
| Application areas | -                              |

### OPTICAL PROPERTIES

|                                         |                   |
|-----------------------------------------|-------------------|
| Excitation maxima @ 573 nm em.          | 352.6 nm (3.4eV)  |
| Emission maximum @ 353 nm exc.          | 573.5 nm (2.2 eV) |
| Centroid wavelength                     | 552 nm (2.2 eV)   |
| Full width @ half emission maximum      | Lines             |
| Lumen equivalent                        | 339 lm/W          |
| CIE1931 chromaticity coordinates (x, y) | 0.345; 0.3926     |
| Band edge of host lattice               | 138 nm (9.0 eV)   |
| Reflection @ 260 nm                     | 80%               |

### PHYSICAL PROPERTIES

|                                  |                        |
|----------------------------------|------------------------|
| Body colour                      | white                  |
| Density                          | 6.53 g/cm <sup>3</sup> |
| Refractive index (at $\lambda$ ) | 1.68 (520.8 nm)        |
| Mineral type                     | Xenotime               |
| Crystal system                   | tetragonal             |
| Space group (#)                  | $I4_1/a m d Z$ (141)   |

