

Fluorescent Material Application Products

Industrial Scintillators



Toshiba Materials offers machinable scintillators containing no hazardous cadmium.

[Advantages]

- Machinable to wide area sheet like scintillators
- Machinable to highly transparent ceramics



Product Specifications

| | GOS scintillators | Conventional scintillators |
|---------------------------------------|-------------------------------------|----------------------------|
| Material | Gd ₂ O ₂ S:Pr | CdWO ₄ |
| Crystal type | Polycrystal | Single crystal |
| Emission maximum [nm] | 512 | 480 |
| Light output (relative value) | 1.2 | 1 |
| Persistence | 3μs | 5μs |
| Afterglow % after 100ms | <0.01 | <0.03 |
| Transparency | Pale yellow | Transparent |
| Density | 7.34 | 7.99 |
| Temperature dependence of sensitivity | 0.1%/°C | 0.2%/°C |
| Environment safety | Excellence | Hazardous cadmium |

Scintillators

Some substances emit light when stimulated by light or radioactive rays. Of these phenomena, those emissions by radioactive rays are called scintillation, and the substances that produce scintillation are called scintillators.