

CERALOX[®]

PHOSPHOR/LUMINESCENT APPLICATIONS

Typical CHEMICAL ANALYSIS

| Product | Al ₂ O ₃ Purity | Trace Impurities, ppm | | | | | Crystal Structure | Powder Form |
|---------------|--|-----------------------|----|----|----|----|----------------------|----------------|
| | | Na | Si | Fe | Ca | Zr | | |
| SPA-59 | 99.999% | <4 | 6 | 1 | <1 | 1 | Gamma | Unmilled |
| SPA-Gamma | 99.998% | 9 | 7 | 3 | 1 | 2 | Gamma | Unmilled |
| SPA-Gamma AF | 99.997% | 10 | 7 | 4 | 2 | 2 | Gamma | Milled |
| SPA-Gamma TMX | 99.997% | 10 | 7 | 4 | 2 | 2 | Gamma | Milled |
| SPA-Alpha | 99.997% | 10 | 10 | 4 | 2 | 2 | Alpha | Unmilled |
| SPA-Alpha AF | 99.997% | 10 | 10 | 5 | 2 | 2 | Alpha | Milled |
| SPA-TMX6 | 99.997% | 10 | 10 | 6 | 3 | 2 | Alpha | Milled |
| SPA-TMX6 AF | 99.997% | 10 | 10 | 7 | 3 | 2 | Alpha | Milled |

Typical PHYSICAL PROPERTIES

| Product | Surface Area, m ² /g | Loose Bulk Density, g/l | Median Particle Diameter, D-50, μm |
|---------------|------------------------------------|----------------------------|---------------------------------------|
| SPA-59 | 50-65 | 480 | 150 |
| SPA-Gamma | 50-65 | 480 | 150 |
| SPA-Gamma AF | 50-65 | 200 | 2.5 |
| SPA-Gamma TMX | 50-65 | 470 | 2.9 |
| SPA-Alpha | 6 | 800 | 150 |
| SPA-Alpha AF | 6 | 350 | 1.3 |
| SPA-TMX6 | 6* | 600 | 1.2 |
| SPA-TMX6 AF | 6* | 450 | 1.0 |

*surface area can be tailored to 1-15m²/g

METHODOLOGY

Chemical Analysis: Inductively Coupled Argon Plasma
Particle Size Distribution: Laser Diffraction
Surface Area: B.E.T.
Density: Hosokawa Powder Analyzer®