

SPINEL

■ SPINEL PRODUCTS RANGE

| Standard Spinel products (Typical values) | | S25CR <i>Powder</i> | S30CR <i>Powder</i> | S8PS <i>Slurry</i> | |
|---|--|---|------------------------|-----------------------|-------------|
| Chemical Composition | | MgAl ₂ O ₄ | | | |
| Crystalline phase (%) | | ≥ 99% Spinel | | | |
| Free Al ₂ O ₃ | | ≤ 0.5% | | | |
| Free MgO | | ≤ 0.5% | | | |
| Specific Surface Area (m ² /g) BET | | 21 - 24 | 25 - 28 | 5 - 12 | |
| Solid Content (wt%) | | - | - | 40 - 50 | |
| pH | | - | - | Basic | |
| Particle Size Distribution (µm) <i>Laser diffraction Horiba LA950</i> | | d ₅₀ | 0.2 - 0.3 | 0.15 - 0.3 | 0.15 - 0.20 |
| Chemical Composition (ppm) | | S | ≤ 200 | 400 - 800 | ≤ 200 |
| | | Fe | ≤ 10 | ≤ 15 | ≤ 10 |
| | | Na | ≤ 50 | ≤ 70 | ≤ 50 |
| | | Si | ≤ 30 | ≤ 30 | ≤ 50 |
| | | Ca | ≤ 45 | ≤ 60 | ≤ 45 |
| K | | ≤ 50 | ≤ 200 | ≤ 50 | |
| Processability | | Depending on your ceramic process | | | |
| Examples of applications | | IR & Bulletproof Transparent Armor Windows Cover glass for phones | | | |

> Spinel products range **characteristics:**

- Controlled in particle size and size distribution
- High chemical purity: **low sulfur content** and low metallic impurities
- Phase purity
- Constant crystallographic composition

> The right choice between our two spinel standard products **strongly depends on your ceramic process.**

*The main characteristics of our Spinel products bring optimal **transparency** with a low scattering loss, without any coloration or defect (black or white spots), and **high mechanical properties.***

PRODUCTS DESIGN

The know-how of Baikowski® allows us to deliver you various Spinel chemical compositions, like: Cobalt, Manganese, Iron...

Often used for luxury & catalysis applications.

PHASIC PURITY DIAGRAM OF SPINEL

