A Grain Zirconia

Zircoa A-grain (zirconium oxide, ZrO₂, or zirconia) is synthesized from zircon sand (ZrO₂·SiO₂) using a solid-state reaction process. The Zircoa A Grain process yields a consistently high purity zirconia composed of monoclinic phase particles. Mean particle size is 2.1 microns by Microtrac analysis. Surface area is 1 m²/g by BET analysis method. Application of A Grain in manufacturing of products is straightforward because of its low surface area and unique spheroid shaped particles.

Some Applications Include:

- Ceramic Color
- High Temperature Insulation
- Opacifiers
- Electronic Ceramics
- Refractories
- Wear Resistant Products
- Catalysts
- Zirconium Metal Production
- Sensors
- High Temperature Filler

**Typical Chemical Analysis (Wt.%)**

<table>
<thead>
<tr>
<th></th>
<th>ZrO₂*</th>
<th>SiO₂</th>
<th>CaO</th>
<th>MgO</th>
<th>Fe₂O₃</th>
<th>Al₂O₃</th>
<th>TiO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99.6</td>
<td>≤0.3</td>
<td>0.2</td>
<td>&lt;0.1</td>
<td>&lt;0.1</td>
<td>&lt;0.1</td>
<td>&lt;0.1</td>
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Other grades can be formulated to satisfy special requirements.

**Typical Lot Size .......... 12,000 lb.**

**Standard Packaging .... 500 lb. recycled steel drums with plastic bag liners**

* Includes naturally occurring HfO₂ 2.5% maximum

**Typical Particle Size Distribution**

NOTICE: Recommendations, property values, and application information we publish are based on various sources including measurements by us and others, and estimates of experience. We intend this to be a reliable guide, but we do not guarantee the applicability, completeness, or accuracy of the information. Users should make their own tests to determine the suitability of any product for their application.

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