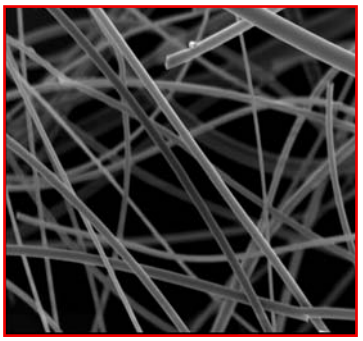
RATH

Designed to Take the Heat

# ALTRA®

## *Polycrystalline Alumina Bulk Fiber*



**ALTRA®** bulk alumina fibers are high purity, low shot content polycrystalline materials for refractory insulation applications up to 1800°C (3000°F). **ALTRA®** fibers are manufactured via a sol-gel solution process to control fiber diameter and non-fibrous shot content. Controlled firing yields the optimal crystalline phase for maximum resistance to thermal shrinkage at elevated temperatures. Two grades are available for a broad range of applications:

- **ALTRA® B72**: mullite composition, superior thermal shrinkage resistance, compressibility and resiliency. Preferred composition for vacuum forming of boards for oxidizing and neutral atmospheres up to 1800°C.

- **ALTRA® B97**: hi-alumina composition, used for vacuum forming boards with excellent resistance to reduction in dry hydrogen and vacuum atmospheres up to 1650°C. Preferred composition for vacuum forming of boards for resistance to chemically induced shrinkage from direct contact with most vapors and solids, including alkalis, acids, and iron oxides.

| Properties | ALTRA® GRADE | | | |
|---|---|---|---|---|
| | **B 72** | **B 97** | **B 97 LA** | **B 97 HA** |
| **Typical Composition** | | | | |
| $Al_2O_3$ | > 71 | > 96 | > 96 | > 96 |
| $SiO_2$ | < 28 | < 3.5 | < 3.5 | < 3.5 |
| $Fe_2O_3$ | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Other oxides | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| **Crystalline Phases** | | | | |
| α-Alumina | < 5% | 30 to 42% | < 10% | > 42% |
| Mullite | > 60% | < 5% | - | < 10% |
| **Fiber Resiliency** | | | | |
| **Settlement Height** ml | 200 to 250 | 150 to 180 | 180 to 200 | 150 |
| **Slurry Density** g/cm$^3$ | 0.025 | 0.028 – 0.033 | 0.025 – 0.028 | 0.033 |
| **Shot Content > 75 Microns (> .003")** | < 1% | < 1% | < 1% | < 1% |
| **Fiber Diameter** µm | 2 to 4 | 2 to 4 | 2 to 4 | 2 to 4 |

- Also available chopped or milled to custom fiber lengths

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