



ALUCHEM

General Characteristics

| | |
|---------------------|--------------------------------|
| Chemical Formula | Al ₂ O ₃ |
| Specific Gravity | 3.9 |
| Melting Temperature | 2040° C |
| Refractive Index | 1.76 |
| Mohs' Hardness | 9 |
| Appearance | White Crystalline Powder |

Polishing Grade Alumina

Typical Chemical Composition

| Properties | AC-66 | AC-5 | AC-662 -325 | AC-300 -325 | AC-300 -325SG |
|------------------------------------|-------|------|----------------|----------------|------------------|
| Al ₂ O ₃ , % | 99.5 | 99.5 | 99.5 | 99.2 | 99.2 |
| SiO ₂ , % | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Fe ₂ O ₃ , % | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Na ₂ O, % | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 |
| *L.O.I., % | 0.14 | 0.14 | 0.14 | 0.3 | 0.3 |

* 300-1200° C

Typical Physical Properties

| | | | | | |
|---|-----------|-----------|---------|---------|---------|
| Ultimate Crystal Size, μm | 3 | 3 | 3 | < 1 | < 1 |
| Surface Area, m ² /g | 0.3 - 0.6 | 0.5 - 0.7 | 0.8 | 9 - 16 | 9 - 16 |
| Oil Absorption | 55 - 65 | 36 - 40 | 20 - 30 | 40 - 50 | 40 - 50 |
| Specific Gravity | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 |
| Bulk Density, Loose, lb/ft ³ | 55 | 66 | 58 | 24 | 24 |
| Bulk Density Packed, lb/ft ³ | 68 | 74 | 70 | 30 | 30 |

Typical Tyler Standard Sieve Analysis

| | | | | | |
|---------------------------------------|---------|---------|---------|-----|-----|
| % on 100 mesh | 1 - 10 | trace | 0 | 0 | 0 |
| % on 200 mesh | 60 - 90 | 25 - 30 | 0 - 1 | 1.5 | < 1 |
| % on 325 mesh | 92 - 98 | 40 - 45 | 2 - 5 | 4 | 3 |
| % pass 325 mesh | 2 - 15 | 55 - 60 | 95 - 98 | 96 | 97 |
| Median Particle Size by Microtrac, μm | - | - | 5 | 3 | 2 |

