

## NS6130-12-001659

# Quick Facts

Titanate Powder

Aluminium Titanate Powder Product

Stock No NS6130-12-001659

CAS 12004-39-6 Molecular Formula Al2O3 • TiO2 Powder Form Color Black

**Purity** 99.9%

### **Technical** Specification

Molecular Weight	Density	Melting Point	Thermal Conductivity
181.83g/mol	3.2g/cm <sup>3</sup>	1860°C	1.6 W/m-K

Aluminum titanate (Al2TiO5) ceramics have a low thermal expansion coefficient, which results in excellent thermal shock resistance, low young's modulus, moderate strength. Aluminum titanate has outstanding properties that make it ideally suited for applications involving molten aluminum, including complete resistance to wetting by aluminum alloys, total gas impermeability, and a very low thermal expansion coefficient. Some of these applications include wall flow filters for diesel particulate emission control, exhaust port liners in automotive engines and thermal shock resistant refractory parts for nonferrous metallurgical industries. It is due to these properties that make the Al2TiO5 suitable for high temperature applications where thermal shock resistance and thermal insulation is required, such as components of internal combustion engines, exhaust port liners, metallurgy and thermal barriers.

# **Applications:**

- Customised special components such as crucibles, casting tips, spacers, port liners, and casting moulds
- Riser tubes, feeders, and stalk for low-pressure die casting
- Nozzles as casting mould inserts or mould joints
- Flow rods and retainer rings
- Sliding plates for flow control of molten masses
- Break rings for continuous casting of brass
- Dosing tubes for dosing furnaces











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