

Material Data Sheet: Barium Titanate

Barium Titanate (BaTiO<sub>3</sub>)

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1. Identification and Purity

|                           |                    |
|---------------------------|--------------------|
| Trade Name / Abbreviation | BaTiO3             |
| Chemical Formula          | BaTiO <sub>3</sub> |
| SCI Part Number           | X056002XXXXZ25     |
| Purity                    | 99.90%             |

2. Physical and Mechanical Properties

| Property                    | Value                                                                | Measurement / Units |
|-----------------------------|----------------------------------------------------------------------|---------------------|
| Density (Bulk)              | 6.02                                                                 | g/cm <sup>3</sup>   |
| Density (Sintered)          | 5.85                                                                 | g/cm <sup>3</sup>   |
| Melting / Sublimation       | 1625                                                                 | °C / °F             |
| Hardness                    | 5                                                                    | Mohs Scale          |
| Mechanical Stress / Modulus | —                                                                    | MPa / GPa           |
| Band Gap / Electrical Type  | 3.2eV                                                                | eV / Semimetal      |
| Configuration               | Planar                                                               | Target Type         |
| Backing Plate Compatibility | Copper & Molybdenum                                                  | Compatibility Notes |
| General Comments            | Known for its high dielectric constant and ferroelectric properties. | —                   |

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