

### Bismuth (Bi) Sputtering Targets

|                                         |                                     |                                   |                           |
|-----------------------------------------|-------------------------------------|-----------------------------------|---------------------------|
| <b>Material Type</b>                    | Bismuth                             | <b>Theoretical Density (g/cc)</b> | 9.8                       |
| <b>Symbol</b>                           | Bi                                  | <b>Z Ratio</b>                    | 0.79                      |
| <b>Atomic Weight</b>                    | 208.9804                            | <b>Sputter</b>                    | DC                        |
| <b>Atomic Number</b>                    | 83                                  | <b>Max Power Density</b>          | 15                        |
| <b>Color/Appearance</b>                 | Lustrous Reddish White,<br>Metallic | <b>(Watts/Square Inch)</b>        |                           |
| <b>Thermal Conductivity</b>             | 8 W/m.K                             | <b>Type of Bond</b>               | Indium                    |
| <b>Melting Point (°C)</b>               | 271                                 | <b>Export Control (ECCN)</b>      | 1C229                     |
| <b>Coefficient of Thermal Expansion</b> | 13.4 x 10 <sup>-6</sup> /K          | <b>Purity:</b>                    | 99.99%, 99.999%, 99.9999% |