

TECHNICAL DATASHEET (TDS)

Product Name: Manganese Dioxide for High-Temperature Porcelain Glazes **Company Name:** BTLnewmaterial **Website:** manganesesupply.com **Email:** lixifirm@outlook.com **Phone:** +8618273793022 **Address:** Room 706, No. 154, Wuyi East Road, Niezhou Residential Committee, Caizichi Sub-district Office, Leiyang City, Hengyang City, Hunan Province, China

1. Product Description

Manganese Dioxide for High-Temperature Porcelain Glazes is a premium ceramic-grade MnO_2 powder with 90–98% purity. It is specifically processed to ensure stable color development in both oxidation and reduction kiln atmospheres. This high-purity coloring oxide is ideal for producing dark brown, black, and metallic surface effects with controlled tone consistency in high-temperature porcelain glazes.

2. Technical Specifications

Parameter	Typical Range
MnO₂ Content (wt%)	90.0 – 98.0
Mn Content (wt%)	58.0 – 63.0
Fe₂O₃ (wt%)	≤ 0.30
Moisture (wt%)	≤ 1.0
Particle Size (D50)	2 – 10 μm
Residue on 325 mesh	≤ 0.3%
Bulk Density	0.8 – 1.1 g/cm ³
Firing Temperature Range	1200 – 1300°C

3. Key Features

- **High Purity:** Ensures stable and consistent color performance in high-temperature applications.
- **Fine Particle Size:** Excellent dispersion in glaze slurries for uniform surface finishes.
- **Low Impurities:** Low iron content minimizes unintended color shifts.
- **Versatile Firing:** Suitable for both oxidation and reduction kiln environments.
- **Batch Consistency:** Reliable chemical composition for industrial-scale production.

4. Applications

- **High-Temperature Porcelain Glazes:** Achieving dark brown, black, and tenmoku-style finishes above 1200°C.
- **Ceramic Tile Glazes:** Providing deep tonal effects in stoneware and porcelain bodies.
- **Artistic Pottery:** Controlled surface variations in reduction firing.
- **Industrial Sanitaryware:** Uniform dark coloration in tunnel kiln production.

5. Packaging & Supply

- **Standard Packaging:** 25 kg woven bags with inner PE liner.
- **Bulk Options:** 1000 kg jumbo bags available upon request.
- **Shipping:** Palletized and suitable for sea freight export.
- **Customization:** Custom labeling and OEM packaging supported.

Disclaimer: The information provided in this Technical Datasheet is based on our current knowledge and experience. Users should conduct their own tests to determine the suitability of the product for their specific applications and firing conditions.