

Technical Data Sheet: Manganese Carbonate Powder for Pottery Body Stains

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1. Product Description

Manganese Carbonate Powder for Pottery Body Stains is a ceramic-grade $MnCO_3$ material specifically designed for use as a colorant in clay bodies and glaze systems. It offers controlled manganese content, ensuring stable color development and uniform dispersion throughout ceramic applications. This product is suitable for various pottery applications, including body stains, slips, and glaze formulations, providing consistent and predictable aesthetic results.

2. Key Features

- Stable Manganese Source:** Provides a reliable source of manganese for ceramic color development, effective in both oxidizing and reducing firing atmospheres.
- High Dispersion:** Exhibits superior dispersion properties compared to manganese oxide, facilitating uniform stain distribution within clay bodies and glazes.
- Controlled Impurities (Fe, Ca, Mg):** Low levels of iron (Fe), calcium (Ca), and magnesium (Mg) prevent unwanted color shifts, muddy tones, and glaze defects, ensuring cleaner and more consistent results.
- Low Heavy Metals (Pb, Cd, As):** Complies with safety standards for ceramic applications, reducing potential health and environmental risks.
- Consistent Particle Size:** Ensures improved mixing and homogeneous integration into slips and clay bodies, contributing to uniform coloration.

- **Predictable Color Development:** Supports the creation of predictable brown, purple, and black tones in finished ceramic products.

3. Technical Specifications

Parameter	Typical Value
MnCO ₃ Purity	≥ 98%
Manganese (Mn) Content	≥ 44%
Particle Size	200–325 mesh
Moisture	≤ 1.0%
Bulk Density	0.8–1.1 g/cm ³
Loss on Ignition	≤ 36%
Iron (Fe)	≤ 0.05%
Calcium (Ca)	≤ 0.30%
Magnesium (Mg)	≤ 0.30%
Lead (Pb)	≤ 10 ppm
Arsenic (As)	≤ 5 ppm
Cadmium (Cd)	≤ 5 ppm

4. Applications

Manganese Carbonate Powder for Pottery Body Stains is widely used across various ceramic applications:

- **Pottery Body Stains:** Incorporated into clay bodies to achieve speckled or uniform coloration during the firing process, enhancing the aesthetic appeal of ceramic wares.
- **Ceramic Glazes:** Utilized to produce a spectrum of colors, including brown, black, and purple hues, which vary depending on the glaze chemistry and firing

conditions.

- **Slip Decoration:** Improves the dispersion of colorants in slips, leading to consistent and vibrant surface color effects on ceramic pieces.
- **Brick and Tile Coloring:** Employed to adjust the base color of bricks and tiles or to create distinctive speckled finishes.
- **Studio Ceramics:** Enables artists and ceramists to achieve controlled artistic color variations and unique decorative effects.

5. Packaging & Supply

BTLnewmaterial ensures the secure and efficient delivery of Manganese Carbonate Powder for Pottery Body Stains with the following packaging and supply options:

- **Packaging:** Supplied in 25 kg kraft paper bags, each equipped with a PE liner to provide superior protection against moisture and contamination.
- **Export:** All products are prepared with palletized export packaging, ensuring stability and integrity during international transit.
- **Shipment:** Available for container shipment (20GP / 40HQ) to accommodate diverse order volumes and logistical requirements.
- **Samples:** Sample quantities are readily available for customers to conduct preliminary ceramic testing and formulation trials, facilitating product evaluation and development.

Disclaimer: The information provided herein is believed to be accurate and reliable. However, BTLnewmaterial makes no warranty, express or implied, concerning the use of this product. Users are responsible for determining the suitability of the product for their specific applications. This information is subject to change without notice.