



PELLETIZING GRADE BENTONITE

Description: It is a natural sodium bentonite (clay) used as an iron ore pellet binder. It has been engineered for superior pellet strength and maximizing binding of all iron ore fines with minimal percentages of addition. The highwater absorption and incredible swelling capacity of sodium bentonite promote balling of the iron ore concentrate, improve green and dry strengths of the pellets, and prevent collapse of the pellets after they are introduced into the rotary kiln.

Physical Properties

Water absorption	> 550 %
Color	Light Gray to Beige
Swelling index	18-20 ml/2gr
Blaine	2800-3500 cm ² /g
Montmorillonite	≥ 80%
Particle size	≥ 90% passing 325 mesh
Type	sodium bentonite
Moisture	6-10 %

HANDLING & SAFETY

- **Handling:** Use standard industrial hygiene practices. Avoid generating dust. Use local exhaust ventilation. Wear appropriate PPE: dust mask (NIOSH N95), safety glasses, and gloves.
- **Safety:** Refer to the product's Safety Data Sheet (SDS) before handling. While not classified as hazardous, dust may **irritate** eyes, skin, and the respiratory system.
- **First Aid:** In case of eye contact, flush with water. For skin contact, wash with soap and water. If inhaled, move to fresh air.

APPLICATION & DOSING

- 1. **Storage:** Store in a dry, covered area to prevent moisture absorption and clumping.
- 2. **Mixing:** The bentonite should be uniformly blended with the iron ore concentrate.
Continuous feeding systems with precision screw feeders are recommended to ensure a consistent and homogenous mix.
- 3. **Dosing:** The optimal dosage is critical. Start at 0.6% and conduct laboratory pelletizing tests to determine the minimum dosage required to achieve target green and dry pellet strengths.

Chemical analysis

SiO ₂	50 - 60%
Al ₂ O ₃	15 - 20%
Fe ₂ O ₃	3 - 5%
CaO	1 - 4%
LOI	7-10%
Na ₂ O	2 - 5%

XRF & XRD Test Methods

The information and data made herein are believed to be accurate. However, considering that production may come from new mineral veins or different mines, if a more detailed analysis or a laboratory certificate is required, please specify it at the time of contract signing.

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