

GAC-ORE BINDER

Organic binder for iron ore pelletizing and briquetting, used alone or in synergy with bentonite

GAC-ORE-BINDER

Metallurgical

Iron Ore Pelletizing

Briquette Binder

Organic Binder

PRODUCT DESCRIPTION

GAC-ORE BINDER is a lignin-based organic binder for iron ore pelletizing and briquetting. Its high organic-matter content forms a wetting film over ore particle surfaces, and its wedge-shaped molecular structure and carboxyl/hydroxyl functional groups create both physical interlocking and chemical bonding (including bonding to iron oxide surfaces), increasing green, dry and thermal (sintering) strength of pellets or briquettes. It performs synergistically with bentonite, which supplies structural framework while the binder wets and cements ore particles together.

TYPICAL PHYSICAL & CHEMICAL PROPERTIES

PARAMETER	TYPICAL VALUE
Organic Matter Content	60% min
Water Solubility	95% min
Fineness	80 mesh min (particle size ≤ 0.18 mm)
pH	7 – 10 (neutral to weakly alkaline)
Viscosity (0.5–2% aqueous solution)	Moderate — suitable for spray application with adequate binding tack
Color	Dark brown preferred (darker color indicates higher quality)

Values represent typical production results and are provided for reference only; they do not constitute a binding product specification. Please refer to the Certificate of Analysis (COA) accompanying each shipment for batch-specific results.

APPLICATIONS

- Binder for iron ore pelletizing and briquetting, dosed at 0.08–0.15% of ore mass (or 10–15% of the bentonite mass used in the mix)
- Dissolved in water to form a 0.5–2% binder solution, then sprayed onto iron ore feed or blended with ore and bentonite prior to granulation
- Can be added by direct spray-wetting of ore, or pre-mixed with a small amount of water before being added to the ore charge
- Best added immediately after the ore-grinding stage (or at the initial mixing stage for pellet production) to allow full penetration into the ore
- Improves green (wet) strength, dry strength and high-temperature (sintering) resistance of pellets/briquettes when mixing is thorough and uniform
- Used synergistically with bentonite: bentonite provides structural framework while the binder wets, coats and cements ore particles for improved bonding strength and pellet quality

PACKAGING, HANDLING & STORAGE

Packaging	25 kg woven bags with liner inside; 500 kg or 600 kg jumbo bag (FIBC) available for bulk orders
Storage	Store in a cool, dry, well-ventilated area, protected from moisture
Handling	Avoid dust generation; avoid direct contact with powder and prepared solution; use appropriate dust protection during mixing and spraying operations
Shelf Life	24 months from production date in original unopened packaging