

BLACK PELLETS

DATA SHEET



Description

Jord's Black Pellet is a torrefied solid biofuel made exclusively from C4-grass, without additives or binding agents. Torrefaction drives off moisture and low-energy volatiles, producing a coal-like fuel with significantly higher energy density, hydrophobic behaviour, and improved grindability. Black pellets are a direct drop-in replacement for thermal coal in existing pulverised-coal boilers and co-firing applications — without major plant modification — while remaining a carbon-equivalent negative fuel produced on marginal and degraded land through a regenerative agroforestry model.

Feedstock: C4-grass **Origin:** Dominican Republic and Senegal



Data table

Parameter	Unit	Pellet	Standard
Diameter, D	mm	$< 8 \pm 1 / < 6 \pm 1$	ISO 17829
Length, L	mm	$30 < L < 40$	ISO 17829
Moisture content	w-%	$\leq 5,0$	SS-EN ISO 18134-2:2017
Ash content	w-%	$< 8\%$	SS-EN ISO 18122:2015
Mechanical durability MD	w-%	≥ 95	SS-EN ISO 17831-1:2016
Bulk density, BD	kg/m ³	≈ 750	SS-EN ISO 17828:2016
Amount of fines (bulk)	w-%	$\leq 1,5$	SS-EN ISO 15149-2:2010
Calorific value (Dry basis)	MJ/kg	≈ 22	SS-EN ISO 18125:2017
Ash deformation temperature, DT	°C	≥ 960	SS-EN ISO 21404:2020
Nitrogen, N	%	$\leq 0,30$	SS-EN ISO 16948:2015
Sulfur, S	%	$\leq 0,04$	SS-EN ISO 16994:2016 mod
Chlorine, Cl	%	$\leq 0,60$	SS-EN ISO 16994:2016
Arsenic, As	mg/kg	≤ 1	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016
Cadmium, Cd	mg/kg	$\leq 0,50$	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016
Cooper, Cu	mg/kg	≤ 10	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016
Lead, Pb	mg/kg	≤ 10	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016
Mercury, Hg	mg/kg	$\leq 0,1$	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016
Nickel, Ni	mg/kg	≤ 10	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016
Zinc, Zn	mg/kg	≤ 100	SFS-EN ISO 16967:2015 mod.; SFS-EN ISO 16968:2015 mod.; SFS-EN ISO 17294-2:2016

Preliminary version: * Black pellet values are estimates pending lab verification. Uncertainty estimated at ± 10 – 15% for thermal properties and $\pm 20\%$ for trace elements. Net calorific value includes removed ash contaminants (i.e. metals). Analysis to be performed by Eurofins

Benefits

- ✓ High energy content ≈ 22 MJ/kg
- ✓ **Hydrophobic:** Water-repellent surface allows outdoor storage and reduces biological degradation — handles like coal, not like wood.
- ✓ **Coal-mill compatible:** Friable structure grinds in existing coal mills without retrofit, enabling drop-in co-firing or full coal substitution.
- ✓ **Low corrosion risk:** Reduced moisture and chlorine sensitivity vs. raw biomass; sulfur remains low ($\leq 0,05\%$) limiting boiler corrosion and SO₂ emissions.
- ✓ **Lower logistics cost:** Higher bulk density and energy density reduce transport and storage cost per delivered MJ.

Best use

- **Power generation:** Coal co-firing & substitution in pulverised-coal power plants (drop-in replacement, no major retrofit).
- **Industrial heat:** Heat supply in industrial boilers, district heating, cement kilns, and steel/metallurgical applications.

Availability

Available in bulk and large sack. Contact sales for orders and inquiries.

