



BLACK PELLETS

DATA SHEET

Description

Torrefied solid biofuel produced from C4 grass, without additives or binders. Its high energy density, low moisture, hydrophobic properties, and grindability provide handling and performance characteristics similar to coal.

Designed to partially or fully replace thermal coal in pulverised-coal boilers, it can be used for co-firing or as a direct substitute without major plant modifications. Produced from C4 grass cultivated on marginal and degraded land.

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



Data table

Parameter	Unit	Value	Standard
Diameter, D (as received)	mm	$6 \pm 1, 8 \pm 1$	ISO 17829
Length, L (as received)	mm	$3.15 \leq L \leq 40$	ISO 17829
Moisture (as received)	w-%	≤ 5.0	ISO 18134-2:2024
Ash (as received)	w-%	≤ 5.0	SS-EN ISO 18122:2022
Mechanical durability (as received)	w-%	≥ 97.5	ISO 17831-1
Bulk density (as received)	kg/m ³	$600 \leq BD \leq 750$	ISO 17828
Gross calorific value (as received)	MJ/kg	20.5 — 24.5	ISO 18125:2017
Net calorific value (as received)	MJ/kg	19.0 — 23.0	ISO 18125:2017
Ash deformation temperature, DT	°C	960	ISO 21404:2020
Nitrogen, N (dry basis)	w-%	≤ 0.2	ISO 16948:2015
Sulfur, S (dry basis)	w-%	≤ 0.04	ISO 16994:2016 mod.
Chlorine, Cl (dry basis)	w-%	≤ 0.34	ISO 16994:2016
Arsenic, As (dry basis)	mg/kg	≤ 1	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Cadmium, Cd (dry basis)	mg/kg	≤ 0.5	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Chromium, Cr (dry basis)	mg/kg	≤ 10	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Cooper, Cu (dry basis)	mg/kg	≤ 10	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Lead, Pb (dry basis)	mg/kg	≤ 10	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Mercury, Hg (dry basis)	mg/kg	≤ 0.1	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Nickel, Ni (dry basis)	mg/kg	≤ 10	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016
Zinc, Zn (dry basis)	mg/kg	≤ 100	ISO 16967:2015 mod.; ISO 16968:2015 mod.; ISO 17294-2:2016

Preliminary version: * Black pellet values are estimates pending lab verification. Uncertainty estimated at ± 10 —15% for thermal properties and ± 20 % for trace elements. Analysis to be performed by Eurofins.

Benefits

- ✓ High calorific value $\approx 22\text{MJ/kg}$ delivers strong energy performance for industrial heat and power.
- ✓ Low sulfur content: Less than **0.04%** on a dry basis helps prevent equipment corrosion.
- ✓ Low chlorine content: Less than **0.34%** on a dry basis helps reduce the risk of metal corrosion and ash-related deposits.
- ✓ **Coal-mill compatible:** Friable structure grinds in existing coal mills without retrofit, enabling drop-in co-firing or full coal substitution.
- ✓ **Hydrophobic:** Water-repellent surface allows outdoor storage and reduces biological degradation — handles like coal, not like wood.
- ✓ Natural lignin binds the pellets **without additives** or adhesives.

Best use

- Industrial heat and steam
- Power generation
- Coal co-firing

Availability

Available in bulk and large sacks. Contact our sales team to discuss volumes, delivery schedules and logistics support.

