

Wood Pellets — Product Specification Sheet

Commodity: **Wood Pellets** | Document Type: **Woody Biomass Status Report** | Biomass Type: **Woody Biomass Pellets**

CALORIFIC VALUE

Parameter	Result	Basis
Higher Heating Value (HHV)	18,970 kJ/kg	Air Dry (AD)
Lower Heating Value (LHV)	17,880 kJ/kg	Arrival (AR)
Anhydrous Calorific Value	18,520 kJ/kg	Dry Basis

PROXIMATE & MOISTURE ANALYSIS

Parameter	Result	Basis
Total Moisture	9.6%	AR
Intrinsic Moisture	4.1%	AD
Ash Content	3.4%	AD
Volatile Matter	77.3%	AD
Fixed Carbon	15.2%	AD
Sulfur	0.05%	AD

ULTIMATE (CHEMICAL) ANALYSIS

Parameter	Result	Basis
Carbon (C)	50.2%	DB
Hydrogen (H)	6.11%	DB
Nitrogen (N)	0.06%	DB
Oxygen (O)	40.08%	DB
Sulfur (S)	0.06%	DB
Burnable Sulfur	0.05%	DB

TRACE ELEMENT ANALYSIS

Element	Result	Basis
Cadmium (Cd)	<0.1 mg/kg	DB
Lead (Pb)	10 mg/kg	DB
Zinc (Zn)	530 mg/kg	DB
Chlorine (Cl)	40 mg/kg	DB
Fluorine (F)	<10 mg/kg	DB
Boron (B)	<0.1 mg/kg	DB
Selenium (Se)	<0.1 mg/kg	DB

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Arsenic (As)	<0.01 mg/kg	DB
Sodium (Na) / Potassium (K)	1,000 / 1,600 mg/kg	DB
Aluminum (Al) / Calcium (Ca)	0.23 / 0.18 %	DB
Silicon (Si) / Magnesium (Mg)	0.96 / 0.049 %	DB
Copper (Cu) / Chromium (Cr)	2 / 25 mg/kg	DB
Vanadium (V) / Nickel (Ni)	2 / 12 mg/kg	DB

PHYSICAL PROPERTIES

Parameter	Result / Description
Bulk Density	0.66 g/cm ³
Particle Size D99	≤ 2.0 mm
Particle Size D50	≤ 0.6 mm
Foreign Matter	Minimal / Controlled
Appearance	Cylindrical Compressed Pellets
Moisture Category	Low Moisture Biomass Fuel
Sulfur Category	Low Sulfur Biomass Fuel

ASH FUSION POINTS

Reducing Atmosphere	Temperature	Oxidizing Atmosphere	Temperature
Initial Deformation (IDT)	1,125°C	Initial Deformation (IDT)	1,155°C
Softening Point (ST)	1,170°C	Softening Point (ST)	1,200°C
Melting Point (MT)	1,180°C	Melting Point (MT)	1,225°C

ASH COMPOSITION ANALYSIS

Component	Result	Component	Result
SiO ₂	58.90%	NaO ₂	3.84%
Al ₂ O ₃	12.44%	KO ₂	5.51%
Fe ₂ O ₃	5.04%	SO ₃	0.95%
CaO	7.37%	P ₂ O ₅	0.72%
MgO	2.32%	TiO ₂	0.48%
MnO	0.37%	V ₂ O ₅	<0.01%