

PCN210S/FPX PERPETUAL CARBON™

CARBONISED BIOCOAL PELLETS



Perpetual Carbon pellets exhibit good potential to act as a drop-in replacement for a variety of different fossil fuels. It can be used as solid substitute for PCI coal (Pulverized Coal Injection) in blast furnace, sinter process or for metallurgic blast furnace processing.

PCN210S/FPX Origin: Forest, plantation and other virgin wood. Traded form: Pellets.

Benefits

- Renewable substitute
- Alternative to fossil brown coal (lignite solid fuel)
- Up to 2.4 t CO₂ emissions avoided per ton PCN210S
- Pellet durability index (PDI) >96 %
- Outdoor stockpile suitable
- High energy density 21 MJ/kg & 56% Carbon

Applications

- Substitute fuel for cement kiln
- Solid substitute for PCI coal in blast furnace
- Solid substitute for sinter process
- Solid for metallurgic blast furnace processing
- Solid feedstock for gasification
- Infra-structure additive



Parameter	Unit	Spec Biocoal Pellet*			Testing Standard
		Min.	Typical	Max.	
Diameter, D	mm	5.5	6.0	6.5	ISO 17829
Length, L	mm	10	22	40	ISO 17829
Mechanical Durability, DU	w-% as received	96	-	-	ISO 17831-1
Bulk Density, BD	kg/m ³ as received	575	600	650	ISO 17828
Moisture **	w-% as received	5.0	8.0	10.0	ISO 18134-1, ISO 18134-2
Ash (composition available)	w-% dry	0.5	1.5	3.0	ISO 18122
Additive for pelletisation	w-% dry	-	-	<5%	-
Net Calorific Value, NCV (dry)	MJ/kg dry	19.5	21.0	22.0	ISO 18125
Net Calorific Value, NCV (a.r.) ***	MJ/kg as received	17.5	19.0	20.0	ISO 18125
Carbon, C	w-% dry	53.0	56.0	59.0	ISO 16948
Fixed Carbon (dry)	w-% dry	19.5	23.5	27.0	ISO 17225
Nitrogen, N	w-% dry	-	-	0.4	ISO 16948
Hydrogen, H	w-% dry	-	-	6.0	ISO 16948
Oxygen, O	w-% dry	-	-	40.0	ISO 16948
Fines	w-% as received	0.1	1.0	4.0	ISO 18846
Volatiles	w-% dry	70.0	75.0	80.0	ISO 18123
Sulphur, S	w-% dry	-	-	0.1	ISO 16994
Chlorine, Cl	w-% dry	-	-	0.1	ISO 16994
Arsenic, As	mg/kg dry	-	-	2.0	ISO 16968
Cadmium, Cd	mg/kg dry	-	-	1.0	ISO 16968
Chromium, Cr	mg/kg dry	-	-	15.0	ISO 16968
Copper, Cu	mg/kg dry	-	-	20.0	ISO 16968
Lead, Pb	mg/kg dry	-	-	10.0	ISO 16968
Mercury, Hg	mg/kg dry	-	-	0.1	ISO 16968
Nickel, Ni	mg/kg dry	-	-	10.0	ISO 16968
Zinc, Zn	mg/kg dry	-	-	100.0	ISO 16968

* All information in this specification is based on measurements by a certified laboratory as per the referenced ISO norm
 ** Typical moisture after manufacture, can vary on storage and atmospheric conditions
 *** Calculated using typical moisture reference