

### CHARCOAL NOVA

### COMPANY PROFILE

At **CharcoalNova**, we offer a range of products, including:

- 1. Charcoal for Export: High-quality charcoal that meets international standards for various applications.
- 2. Briquettes for Local Supply: Our briquettes serve the local market, providing an efficient and eco-friendly fuel source.
- 3. Briquettes for Export: We also export briquettes, ensuring our eco-friendly products reach global markets.



### CHARCOAL NOVA

We take our responsibility to the environment seriously. We understand the concerns surrounding charcoal production and the potential impact on our forests. That's why we are dedicated to an environmentally friendly approach that meets our customers' needs and prioritises our planet's health.

In Nigeria, where our production occurs, we have access to abundant trees. However, we don't just harvest; we also give back. At CharcoalNova, we are committed to environmental sustainability. For every 10 trees we cut down for charcoal production, we plant 10 new trees back into the environment. This practice helps replenish the forests, supports biodiversity, and combats climate change.

Our sourcing strategy focuses on land where landowners wish to build new structures, allowing us to responsibly obtain wood without depleting our natural resources. We also source trees from farmers while clearing farmland and use available resources responsibly. By working closely with local communities, we ensure our practices benefit the environment and the economy.

We believe that charcoal production can be both efficient and sustainable. Through our reforestation efforts, we aim to dispel concerns about deforestation and demonstrate that responsible practices can lead to a healthier planet for generations to come.

Join us in our mission to produce high-quality charcoal while nurturing the environment. Together, we can make a difference.

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At CharcoalNova, we follow a meticulous and sustainable production process to create premium-quality charcoal products. Below is an in-depth explanation of each stage, from raw material selection to final packaging and distribution.

### **Carbonisation (Burning)**

Raw Material Selection: We source high-quality hardwood from sustainably managed forests. The wood is selected based on density, moisture content, and consistency to ensure optimal output.

Kiln Preparation: The hardwood is loaded into traditional or modern kilns. These kilns are designed to regulate airflow, which is crucial for carbonisation.

Carbonisation Process: The wood undergoes slow pyrolysis and is heated at high temperatures (up to 500°C) in a low-oxygen environment. This removes water, sap, and other volatile substances, leaving behind pure carbon in the form of charcoal.

Monitoring: Experienced workers continuously monitor temperature and oxygen levels to avoid over-burn or under-carbonisation.

Cooling Phase: Once the process is complete, the charcoal can cool naturally in a controlled environment to maintain its structural integrity.



#### Crushing

Feeding the Crusher: The cooled charcoal is transferred to an industrial crusher. Large lumps are broken down into smaller particles depending on the end-product requirements.

Particle Size Adjustment: Briquette charcoal is ground into fine dust, while loose charcoal is broken into uniform granules.

Dust Management: Advanced dust-collection systems are in place to minimise waste and maintain a clean working environment.



#### Mixing

Binder Addition: The crushed charcoal is mixed with a natural binding agent, such as starch or molasses, to improve cohesiveness. The binder ensures that the charcoal particles stick together during briquetting.

Proportioning: The charcoal-to-binder ratio is calculated for optimal strength and burn efficiency.

Homogenisation: The mixture is churned in industrial mixers to achieve a uniform blend, ensuring the binder is evenly distributed.



### **Briquetting**

Feeding into the Machine: The blended charcoal mixture is fed into a high-pressure briquette machine.

Shaping: The machine compresses the mixture into various shapes, including cubes, cylinders, or pillows, depending on market demand.

Compaction: The high-pressure compaction process creates dense and durable briquettes that do not crumble during handling or combustion.



### **Drying**

Transfer to Drying Chambers: Freshly moulded briquettes are transferred to drying chambers or sun-drying racks.

Moisture Removal: The drying process reduces moisture content to below 10%, ensuring efficient combustion and a long shelf life.

Quality Assurance: Samples are tested for moisture levels to ensure consistency across batches.



#### **Packaging**

Weighing and Bagging: As requested, the dried briquettes are weighed and packed into 25 kg sacks or other custom packaging options.

Sealing: Bags are sealed securely to prevent moisture ingress during storage and transportation.

Labelling: Each package is labelled with production details, including batch numbers, weights, and quality certifications, for traceability and compliance.



### **Shipping and Logistics**

Loading: The packaged products are palletised for easy handling and loaded into containers.

Export Compliance: All shipments undergo fumigation and meet international export standards, ensuring smooth clearance at customs.

Delivery Coordination: Our logistics team provides timely and costefficient delivery to the customer's location.



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### WHY CHARCOAL NOVA

#### **CHARCOAL NOVA**

Attention to Detail: Every step in our process is optimised for quality and efficiency.

Eco-Friendly Practices: We prioritise sustainability at every stage, from sourcing to packaging.

Customer-Centric Approach: We customise our products and services to meet the specific needs of our clients.









### GET IN TOUCH

For enquiries regarding our products and services, please contact us at CharcoalNova at:

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