Coconut Shell Gold Activated Carbon

Indicator: iodine value ≥ 950 mg/g

Specifications: 6−12 mesh, 8−16 mesh, 5−10 mesh, 4−8 mesh, 3 mm cylindrical, 1.5 mm cylindrical

Complete export qualifications: MSDS, self-heating report, and sea transport certification report; eligible for export.

Coconut shell gold activated carbon is manufactured using a specialized process that subjects the activated carbon particles to high-intensity shaping. This process virtually eliminates the needle-shaped, pointed, and angular regions of the particles—features that are prone to abrasion—resulting in well-rounded and uniform particle morphology. This significantly enhances the product's wear resistance; consequently, no pre-grinding is required upon arrival at the plant, and the product can be used directly after rinsing with water. Yuncheng gold activated carbon appears as black, irregularly shaped particles characterized by uniform particle size, well-developed porosity, a large specific surface area, strong adsorption capacity, high mechanical strength, low bed resistance, excellent chemical stability, ease of regeneration, and superior wear resistance. It is highly suitable for modern gold mining operations, primarily employed in heap leaching or carbon slurry processes for the separation and extraction of

Yunchneg

precious metals in the metallurgical industry. The coconut shell activated carbon excels in high adsorption capacity and rapid adsorption kinetics, while its high strength and wear resistance constitute its key advantages. When applied in gold extraction and precious metal recovery processes, it not only offers high adsorption capacity and rapid adsorption kinetics but also significantly improves gold recovery rates and equipment production efficiency, with the material being reusable for three to four cycles.

Mechanism of gold extraction using activated carbon:

1. In the cyanide solution, gold is adsorbed onto the inner surface of the activated carbon either as an ion pair or as a neutral molecule, or as a complex ion that associates with metal ions and precipitates within the interporous spaces of the activated carbon; these metal ions originate from the solution or from the ash residue of the activated carbon (such as Ca, K, Na, etc.).

Yunchneg

2. $Au(CN)_2^-$ undergoes chemical decomposition to form insoluble AuCN, which remains within the voids of the carbon matrix.

3. Certain gold cyanide complexes can be reduced to compounds containing gold atoms in oxidation states of 0 and +1.

4. $Au(CN)_2^-$ or AuCN is reduced to metallic Au.

Advantages of coconut shell-derived activated carbon:

1. Import coconut husk raw materials from Southeast Asia; these husks feature thick walls and high strength.

2. No thin sheets required, no grinding needed, and high wear resistance.

Technical Parameters of Gold-Activated Carbon:

project name	qualification	qualification
Material	Coconut shell granules	Coal quality column
Size	6−12 mesh, 8−16 mesh, 5−10 mesh, 4−8 mesh	1.5 mm/3 mm cylindrical
Iodine value mg/g	≥950	≥950
Ash content (%)	≤3	≤10
Moisture %	≤5	≤5
Intensity %	≥98	≥98
Fill density (g/ml)	0.45-0.55	0.45-0.55
PH	>7	>7

Yunchneg