



DDR -G - GOLD RECOVERY

DDR -G-SORB 6 X 12 is a Very famous grade of activated carbon manufactured exclusively using coconut shell charcoal for the purpose of Gold Extraction in Gold Mines Worldwide.



Our G series DDR carbon products offers superior performance in terms of providing the highest gold adsorption capacity (K value), rate of adsorption (R value), superior hardness and abrasion resistance. Our Gold Carbon products provide our customers with exceptional value by maximizing yield while minimizing loss.

In gold recovery applications, adsorption forces remove gold from solutions and adhere the metal complex to the carbon surface. Because the reaction occurs at the surface of the carbon, the adsorption process is relatively easy to reverse, a process called “desorption.” While it is important to maximize the adsorption of gold from the solution, it is equally as important to subsequently desorb the gold from the carbon. Any molecules that remain adsorbed after elution or stripping translate into gold that cannot be recovered. As a result, it is important to select an activated carbon that efficiently adsorbs and desorbs to maximize overall yield and profitability.



Gold primarily occurs in its native form or as an alloy with silver or mercury and as sizeable nuggets or fine grains or microscopic particles in alluvial deposits .Gold smelting was done as early as 3000 BC in Mesopotamia during the ancient times. Various techniques like crushing, washing, heating, immersing gold in water and cyanide solution and finally "heap leaching" in the 1970s were used to extract gold from its native state .Today, we have activated carbon which has been an effective extraction and recovery option for gold

Coconut shells from South India , and only mature ones are burnt uniquely at the right temperatures to maintain the high level of hardness of the shells. This step is very important as the temperature cannot be more or less than 600-900 degrees Celsius. They go through crushing stage using our own unique crusher to avoid increase of platelet content. The platelet content of our Gold Carbons is limited to 2%.



Gold Recovery Process

Once the Gold Carbon is manufactured, it is used mainly for recovery purposes. Gold recovery has two major processes called Adsorption and Desorption. Adsorption is where the gold molecules get collected on the surface of the Activated Carbon.

While it is best to get the molecules adsorbed, it is also equally important to get the gold out of the Activated Carbon through a process called Desorption. Some molecules that continue to be adsorbed after desorption or elution, will be categorized as unrecovered gold. This explains why the quality of Gold Carbons need to be in par to yield and recover the maximum.



Activation and Abrasion

How are they done?

The charcoal is processed for activation in the kiln, exclusively segregated for production of gold carbon, so as to avoid any cross contamination. Activation is followed by abrasion where the activated carbon is transferred to a roller in order to achieve a high abrasion rate.

Ash reduction

Finally, Our Gold Carbon is fed into a dust collector which reduces the ash content as per the requirement

Testing Procedure

ASTM STANDARDS

Analysis	ASTM Standards
Particle size distribution	D 2862
Moisture (%)	D 2867
CTC(%)	D 3467
Iodine Value (mg/g)	D 4607
Ash (%)	D 2866
PH	D 3838
Hardness	D 3802

DDR OVERSEAS

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