



*Minimise your loss
Maximise your yield
High adsorption and
desorption capacities.*



Vision Advance Speciality Carbons

Purity with Reliability

History of Gold

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.

VAS Carbons has its own manufacturing facility at Karnataka to produce high quality Activated Carbon for gold recovery. We develop our own shell charcoal to achieve high qualities in abrasion resistance, adsorption capacities (K value), adsorption rates (R value) and hardness.

Sourcing of raw materials The Southern Way

We use coconut shells which are grown in South India for our Coconut Shell based Activated Carbon. South India contributes to almost 90% of the total coconuts produced in India. South Indian coconut shells are superior in their hardness compared to the others, elsewhere in India.

The best kept Secrets uncovered

The process that is involved in the manufacture of Gold Carbons had been kept in strict confidentiality over the years. Nevertheless, it is time to reveal the best kept secrets of VAS Carbons to the world.

They are burnt and Crushed unforgivingly

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%.

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.



Get familiar with the 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.

All's well that's packaged well

Gold Carbons are packaged in convenient sizes namely 25 kg, 50 kg, 100 kg and 500 kg convenient bags. Other packages will be customized upon request.

Common Mesh Grades Carbon for Gold Recovery

| GRADE | GAC612A | GAC612B | GAC612C | GAC816A | GAC816B | GAC816C |
|--------------------------|----------|----------|----------|----------|----------|----------|
| Type | Granular | Granular | Granular | Granular | Granular | Granular |
| Particle Size (US Mesh) | 6x12 | 6x12 | 6x12 | 8x16 | 8x16 | 8x16 |
| CTC Activity (%) | 50 | 55 | 62 | 50 | 55 | 60 |
| K Value | 24 | 26 | 32 | 24 | 30 | 30 |
| R Value | 47 | 50 | 58 | 47 | 50 | 55 |
| Hardness | 99.2 | 99 | 99 | 99.2 | 99 | 99 |
| Apparent Density (gm/cc) | 0.53 | 0.5 | 0.47 | 0.53 | 0.5 | 0.49 |
| Moisture | 4 | 4 | 4 | 4 | 4 | 4 |
| Ash (%) | 2 | 2 | 2 | 2 | 2 | 2 |
| PH | 9-11 | 9-11 | 9-11 | 9-11 | 9-11 | 9-11 |



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 |



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