

CHEMICALLY ACTIVATION PROCESS:

We are manufacturer of Chemically Activated Carbon.

Chemically Activated Carbon is manufactured by Carbonization cum activation of pinewood sawdust & the activating agent is Phosphoric Acid. A pest of sawdust acid is charged in Rotary Kiln & gradually heated up to 600-700°C temperature, the product comes out of kiln is washed to recover acid & reuse the same in process. Washed product is then dried & ground to client's requirement.

Chemically Activated Carbon is successfully used in Glucose, Dextrose, Starch, Fine Chemicals, and Dyes & Sugar Industries.

END-USER APPLICATION PREFERENCES FOR OUR VARIOUS GRADES

	APPLICATION	AC-15	AC-20	AC-25	AC-30
1	Citric Acid Crystals			X	X
2	Glucose & Starch			X	X
3	Micro – Crystalline waxes			X	X
4	Shellac			X	X
5	Drugs & Pharmaceuticals			X	X
6	Opium & Opiate Alkaloids			X	X
7	Phosphoric/Sulfuric Acids		X	X	X
8	Sugar Syrup & Glycerin	X	X	X	X
9	Rice Bram oil, Pepper Extracts	X	X		
10	Anal gin/paracetamol		X	X	X
11	Amyl alcohols/Tartatci Acid	X	X		
12	Light Coloured Liquid	X	X		
13	Deep Coloured Liquids		X	X	X
14	Dyes & Dye Intermediates	X	X	X	X
15	Water Pollution Control			X	X
16	Vitamin C			X	X

“X” DENOTES PREFERERED GRADES.

CHEMICALLY ACTIVATED CARBON - POWDER

(Pinewood sawdust base)

SPECIFICATION OF THE PRODUCT:- (REF.NO. AC)

1	NAME OF THE PRODUCT	CHEMICALLY ACTIVATED CARBON POWDER				
2	GRADE	AC-15	AC-20	AC-25	AC-30	AC-GL
3	DESCRIPTION	Black fine powdered form				
4	SOURCE OF MATERIAL	Pinewood sawdust				
5	M.B.VALUE Mg/Gm	140-155	190-205	240-255	290-305	150-160
6	KMnO ₄ ADSORPTION% (MIN.)	60	80	90	95	45 - 50
7	pH OF 1% WATER EXTRACT	5 to 6	4 to 6	4 to 6	4 to 6	6 to 7
8	BULK DENSITY, Gm/ML	0.35	0.26	0.22	0.20	-
9	ASH CONTENT % MAX.	10	10	10	10	10
10	MOISTURE % MAX.	5 to 10	5 to 10	5 to 10	5 to 10	5 to 10
11	LOSS ON DRYING% MAX.	10	10	10	10	10 - 12
12	INTERNAL SURFACE AREA Sq. Meters /Gm (Min.)	600	800	1000	1100	-
13	PARTICAL SIZE % <200 MESH BSS	80-85	80-85	80-85	80-85	80-85
	PACKING	25/40 Kg HDPE woven sacks with inside of polyethylene bag.				
	PRICE Rs. Per Kg.					

Terms:

- (1) Excise Duty: presently not applicable. If applicable in future, it will be extra.
- (2) VAT @ 5% (Currently)/CST @ 2% against form 'C'. (3) Delivery: Ex-works, Gorwa, Baroda
- (4) Others: Freight, insurance extra, & other levies, if applicable, it will also be extra.
- (5) Minimum quantity: 500 Kg. (6) Delivery period: 8 to 10 days.

DETERMINATION OF POTASSIUM PERMANGANATE
ADSORPTION VALUE OF POWDER ACTIVATED CARBONS

Take about 5 gm of Carbon sample. Grind enough quantity to pass through 200 mesh BSS (about 1 gm). Weight 0.4 gm of carbon in iodine flask. Take 25 cc of 0.1 N KMnO_4 solution and introduce in the flask. Shake exactly for 10 minutes. Keep aside the flask in the dark for 9.5 minutes.

After the time elapses filter quantitatively in 250 cc measuring flask. Wash till free from KMnO_4 colour. Make up the volume to 250 cc. Take 25 cc of the solution add 5 gm of KI and 10 cc of 4M H_2SO_4 . Titrate the liberated iodine with 0.1 N $\text{Na}_2\text{S}_2\text{O}_3$. Say the reading is Y. Perform the blank experiment measuring flask. Wash till free from KMnO_4 colour. Make up to 250 cc. Take 25 cc of this add 5 gm of KI and 10 cc 4M H_2SO_4 . Titrate liberated I_2 with 0.1 N $\text{Na}_2\text{S}_2\text{O}_3$ (using starch indicator). Say the reading is X cc.

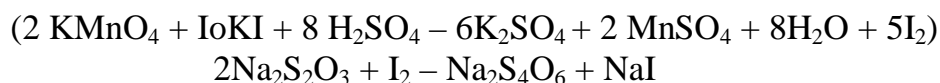
CALCULATIONS:

Solutions Required

- a) 0.1 N KMnO_4 : Dissolve 3.16 gm of KMnO_4 per litre.
- b) 1 N $\text{Na}_2\text{S}_2\text{O}_3$: 25 gm / litre of $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$
- c) Solid KI
- d) 4 M H_2SO_4

Then the % KMnO_4 adsorption is given by:

$$\frac{X - Y}{X} \times 100 \times \frac{0.4}{\text{Actual wt of sample}}$$



OR

KMnO₄ Adsorption Test Method:

Take 400 mg carbon, Add 25 ml 0.1 M KMnO₄ solution, shake the mixture for 30 secs, Allow residence (adsorption) time of 9.5 minutes (Total time 10 minutes), Filter it in a measuring flask and then wash carbon with distilled water till measuring flask level read 250 ml, Take 25 ml from this, add 0.1 N 40 ml H₂SO₄ (LR) and 5gm KI (Potassium Iodide), Heat to steaming and add starch Indicator, Dark Blue colour will appear, Titrate against 0.1N Sodium Thiosulphate (Na₂S₂O₃) to colorless end-point , Note Na₂S₂O₃ ml used to get to this end point.

Make Reference -or Blank -Solution exactly as above BUT WITHOUT USING CARBON,

Note Na₂S₂O₃ reading in ml, calculate KMnO₄ percentage as under :

$$\text{KMnO}_4 \% = \frac{\text{Blank reading} - \text{Actual reading}}{\text{Blank reading}} \times 100$$