

Activated Carbon -

Market Survey cum Detailed Techno Economic Feasibility Project Report

Introduction

Activated Carbon is a unique material because of the way it is filled with holes (voids, spaces, sites, pores,) whatever the size of molecules. It is that, although they are spaces of zero electron density, these pores possess intense vander wall forces (from the near proximity of carbon atoms).



Activated carbon is a non-graphitic form of carbon, which could be produced by activation of any carbonaceous material such as coconut shells, bamboo, wood chips, sawdust, coal, lignite, paddy husk etc. The process of activation is carried out in two stages. The raw material is first carbonized and then activated either by chemicals or by steam to derive the highly porous structure.

Shell-based activated carbon is extensively used in the process of refining and bleaching of vegetable oils and chemical solutions, water purification, recovery of solvents, recovery of gold, in gas masks for protection against toxic gases, in filters for providing adequate protection against war gases/nuclear fall outs, etc.



Uses and Application

A wide variety of activated carbon products are available exhibiting markedly different characteristics depending upon the raw material and activation of technique used in their production. In selecting the activated carbon it is important to have a clear understanding of both the adsorptive and physical characteristics of the material in order to optimize the performance capabilities.

Activated Carbon of three grades namely powder, granular and pelletized finds hundreds of different applications. By chemical activation, predominantly powder activated carbons are made and these qualities are mostly used for wastewater treatment. Granular products and pellets used for gas purification are predominantly made by gas steam activation.

To cite some examples from the numerous applications: decolorization of sugar and sweeteners, drinking water treatment, gold recovery, production of pharmaceuticals and fine chemicals, catalytic process, off gas treatment of waste incinerators, automotive vapor filters, color/odor correction in wines and fruit juices.

Market Survey

The global activated carbon market was worth \$1.8 billion in 2011 and is estimated to reach \$3 billion by 2016, growing at a CAGR of 11.1% from 2011 to 2016. The powdered and granular activated carbon segments are the key revenue generators for the activated carbon market.

The demand for activated carbon (AC) is expected to grow due to the new demand in mercury control technology for industrial air purification applications.

PROJECT AT A GLANCE

PROJECT AT A GLANCE				(Rs. in lacs)			
COST OF PROJECT				MEANS OF FINANCE			
Particulars	Existing	Proposed	Total	Particulars	Existing	Proposed	Total
Land & Site Development Exp.	0.00	45.00	45.00	Capital	0.00	137.92	137.92
Buildings	0.00	144.40	144.40	Share Premium	0.00	0.00	0.00
Plant & Machineries	0.00	186.37	186.37	Other Type Share Capital	0.00	0.00	0.00
Motor Vehicles	0.00	10.00	10.00	Reserves & Surplus	0.00	0.00	0.00
Office Automation Equipments	0.00	77.00	77.00	Cash Subsidy	0.00	0.00	0.00
Technical Knowhow Fees & Exp.	0.00	25.00	25.00	Internal Cash Accruals	0.00	0.00	0.00
Franchise & Other Deposits	0.00	0.00	0.00	Long/Medium Term Borrowings	0.00	413.76	413.76
Preliminary& Pre-operative Exp	0.00	5.00	5.00	Debentures / Bonds	0.00	0.00	0.00
Provision for Contingencies	0.00	15.00	15.00	Unsecured Loans/Deposits	0.00	0.00	0.00
Margin Money - Working Capital	0.00	43.91	43.91				
TOTAL	0.00	551.68	551.68	TOTAL	0.00	551.68	551.68

PROJECT AT A GLANCE

Year	Annualised		Book Value	Debt	Dividend	Retained Earnings		Payout	Probable Market Price	P/E Ratio	Yield Price/ Book Value
	EPS	CEPS	Per Share		Per Share	Per Share				No.of Times	
	Rs	Rs	Rs	Rs	Rs	%	Rs	%	Rs		%
1-2	10.63	14.83	20.63	24.00	0.00	100.00	10.63	0.00	10.63	1.00	0.00
2-3	14.48	18.14	35.12	18.00	0.00	100.00	14.48	0.00	14.48	1.00	0.00
3-4	18.30	21.48	53.42	12.00	0.00	100.00	18.30	0.00	18.30	1.00	0.00
4-5	22.02	24.81	75.44	6.00	0.00	100.00	22.02	0.00	22.02	1.00	0.00
5-6	25.64	28.08	101.08	0.00	0.00	100.00	25.64	0.00	25.64	1.00	0.00

PROJECT AT A GLANCE

Year	D. S. C. R.			Debt / - Deposits Debt	Equity as- Equity	Total Net Worth	Return on Net Worth	Profitability Ratio					Assets Turnover Ratio	Current Ratio
	Individual	Cumulative	Overall					GPM	PBT	PAT	Net Contribut ion	P/V Ratio		
	(Number of times)			(Number of times)		%	%	%	%	%		%		
Initial				3.00	3.00									
1-2	1.95	1.95		1.16	1.16	1.86		17.42%	12.78%	8.49%	611.37	35.38%	2.19	1.30
2-3	2.41	2.17		0.51	0.51	0.98		19.07%	15.34%	9.91%	706.70	35.05%	2.14	1.81
3-4	2.96	2.41	2.96	0.22	0.22	0.58		20.18%	17.16%	10.95%	807.50	35.05%	2.01	2.36
4-5	3.62	2.67		0.08	0.08	0.36		20.94%	18.47%	11.72%	908.30	35.04%	1.85	2.94
5-6	4.42	2.96		0.00	0.00	0.23		21.45%	19.41%	12.28%	1009.10	35.04%	1.69	4.45



PROJECT AT A GLANCE

BEP

BEP - Maximum Utilisation Year

5

Cash BEP (% of Installed Capacity)

41.16%

Total BEP (% of Installed Capacity)

44.49%

IRR, PAYBACK and FACR

Internal Rate of Return .. (In %age)

46.26%

Payback Period of the Project is (In Years)

2.814 Years

Fixed Assets Coverage Ratio (No. of times)

10.051

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- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*



What do we offer?

- *Project Identification*
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- *Market Research Reports*
- *Technology Books and Directory*
- *Databases on CD-ROM*
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- *Entrepreneur India (An Industrial Monthly Journal)*



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- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*



Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
- *NRI's*
- *Foreign Investors*
- *Non-profit Organizations, NBFC's*
- *Educational Institutions*
- *Embassies & Consulates*
- *Consultancies*
- *Industry / trade associations*

Sectors We Cover

- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
- *Alcoholic And Non Alcoholic Beverages, Drinks*
- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*

- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitability Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

Sectors We Cover *Cont...*

- *Paints, Pigments, Varnish & Lacquer*
- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

Sectors We Cover *Cont...*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*

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