

GYPSUM PLASTER BOARD

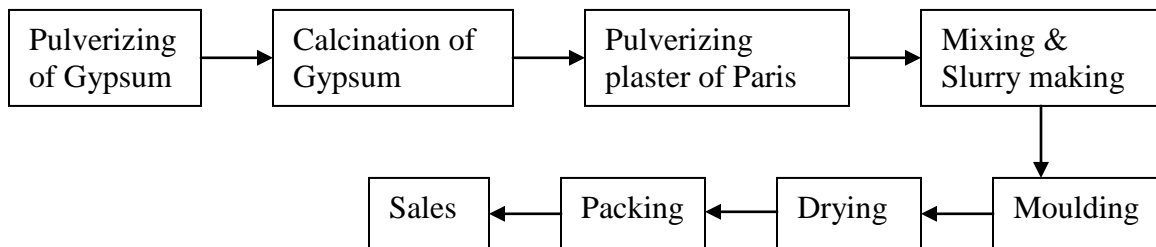
Introduction: Gypsum Plaster Board as per Bureau of Indian Standard Specification Number IS: 2095-1964 are used in False Ceilings, Light partition walls etc for better appearance & thermal insulation properties. Such Boards use gypsum with paddy husk, Jute sticks & Fibre, coir etc. Gypsum Boards are preferred in indoor uses as wood & plywood have become costlier and as timber destruction can be reduced by using them. thus it is an environment friendly product.

Market: With rapid increase in real Estate business and Housing activities the demand for Gypsum Boards have increased. It is still considered as low cost substitute for plywood, hardboard and wooden panel Boards, all of which cause depletion of forest resources. Gypsum Boards also use paddy Husk, straw, jute stick, etc. waste materials. Gypsum Boards are also preferred interior decoration item for commercial establishments. With high priority attached to housing and increased flow of finance towards low-cost houses demand for Gypsum Plaster Boards have increased.

Installed Capacity: The proposed unit shall operate for single shift of 8 hours per day for 30 working days per year. It will have an annual installed capacity to produce 300000 kilograms of Gypsum plaster Boards of assorted sizes.

Process of Manufacture: Gypsum is Disc Pulverized after drying. These are calcined in Rotary Drum Calciner at 140°C to 170°C for about two hours. After cooling the plaster of paris is pulverized again to a mesh of 150. the fine plaster is mixed with colouring material and then made into a slurry by adding water. The slurry is poured into moulds where reinforcement materials are placed. The upper surface is smoothed by wooden reaper or straight wooden planks and excess material is recycled by mixing in slurry. Properly set boards are removed from moulds and placed on wooden racks for drying in shade for 3 to 4 days. After drying Boards are packed in Corrugated Cardboard sheets and Boxes for sales.

Process Flow:



Raw Materials:

Sl.No.	Raw Materials	Annual Cost
1.	Gypsum	12,00,000/-
2.	Reinforcement	3,50,000/-
3.	Packing Materials	18,00,000/-
4.	Consumables for mould Lubricating	5,00,000/-
		38,50,000/-

Power: At 200/200 volts, 50 Hz, AC Single phase & 3 wire. The unit will need a total connected Load of 5 KW. The annual consumption of power is estimated at 11476 KWHrs costing Rs. 20,657/-.

Water: The unit will need 500 Liters of water cost of drawing of water is shown in power cost.

Manpower: Manpower requirement and costs shown below are locally available:

Sl.No.	Category of Manpower	No. of Persons	Annual Cost
1.	Manager cum Chemist	1	78,000/-
2.	Administrative & Sales Staff	3	84,000/-
3.	Skilled Worker	4	60,000/-
4.	Unskilled Worker	4	60,000/-
	Total:	12	2,82,000/-

CAPITAL COST ESTIMATE:

1.	Land & Building : Covered Area 186 sq. Mtrs:	On rent	
2.	Plant & Machinery:		
a)	45 Cm size Altrition type Disc Pulveriser with 7 H.P. Motor	Rs. 95,000/-	
b)	2.5 M long 2M Dia Cylindrical Potary Drum Calciner with coal fired roasting oven	Rs. 1,00,000/-	
c)	Platform type weighing balance of 100 kg capacity	Rs. 17,500/-	
d)	6 Nos. of 4' x 6' wooden Tables with polished Marble Top	Rs. 30,000/-	
e)	Moulds Hand Tools, slurry making Tank, etc.	Rs. 15,000/-	
f)	Testing equipments	Rs. 12,500/-	
	Total	Rs.2,70,000/-	
3)	<u>Miscellaneous Fixed Asset</u>		
a)	Electrification	Rs. 50,000/-	
b)	Water Installation	Rs. 10,000/-	
c)	Furniture & Miscellaneous others	Rs. 40,000/-	
		Rs. 1,00,000/-	
4.	Provision for contingencies	Rs. 20,000/-	
5.	Preliminary & pre-operative expenses	Rs. 20,000/-	
	Total Fixed Capital:	Rs. 4,10,000/-	
6.	<u>Working Capital (for 3 months)</u>		
a)	Raw Materials	3,20,833/-	
b)	Power	1,721/-	
c)	Salary & Wages	23,500/-	
d)	Miscellaneous expenses	3,946/-	
	Total::	Rs. 3,50,000/-	
	Total Project Cost:	Rs. 7,60,000/-	
<u>Means of Finance:</u>	<u>Urban</u>	<u>Rural</u>	
a.	Composite loan under PMEGP	Rs.5,32,000/-	Rs. 4,56,000/-
b.	Subsidy	Rs.1,90,000/-	Rs. 2,66,000/-
c.	Promoters contribution	Rs. 38,000/-	Rs. 38,000/-
d.	Debt Equity Ratio	2.33:1	1.50:1

Profitability:

(Rs. in Thousands)

Sl.No.	Description	1 st Year	2 nd Year	3 rd year	4 th Year	5 th Year
1.	Capacity utilized	60%	70%	80%	80%	80%
2.	Annual Sales Realization	3,456	4,032	4,608	4,608	4,608
3.	Annual Costs in Rs.					
(a)	Raw Materials	2,310	2,695	3,080	3,080	3,080
(b)	Power	12	14	17	17	17
(c)	Wages & Salaries	282	289	296	304	311
(d)	Repair & Maintenance	16	16	16	16	16
(e)	Administrative overheads	75	79	83	87	91
(f)	Selling expenses	518	605	691	691	691
(g)	Depreciation	40	40	40	40	40
(h)	Interest	61	49	36	22	7
	Total:	3,314	3,787	4,259	4,257	4,253
	Total Variable Cost	2,840	3,314	3,788	3,788	3,788
4.	Annual profit	142	245	349	351	355
5.	Return on investment	18.68%	32.24%	45.92%	46.18%	46.71%
6.	Return on sales	4.11%	6.08%	7.57%	7.62%	7.70%
7.	Cash accrual	182	285	389	391	395
8.	Annual Contribution	616	-	-	-	-
9.	Break Even Point in percent	46.17%	-	-	-	-
10.	Debt servicing capacity	243	334	425	413	402
11.	Repayment of Loan	87	100	115	115	115
12.	Debt serviced	148	149	151	137	122
13.	Pay Back Period	2 years 2 months 1 day				
14.	D S C Ratio (DSCR)	2.57:1				

Cash Flow Statement:

(Rs in Thousands)

Sl. No.	Description	Pre-operative Period	Operating Years				
			First	Second	Third	Fourth	Fifth
1.	Increase in Promoter's capital	38	-	-	-	-	-
2.	Increase in subsidy	190	-	-	-	-	-
3.	Increase in loan	532	-	-	-	-	-
4.	Depreciation	-	40	40	40	40	40
5.	Profit before interests	-	203	294	385	373	362
A.	TOTAL SOURCES	760	243	334	425	413	402
6.	Increase in capital investment	410	-	-	-	-	-
7.	Increase in Current Assets	350	-	-	-	-	-
8.	Interests	-	61	49	36	22	7
9.	Repayment of loan	-	87	100	115	115	115
B.	TOTAL DISPOSALS	760	148	149	151	137	122
C.	OPENING BALANCE	-	-	95	280	554	830
D.	NET SURPLUS	-	95	185	274	276	280
E.	CLOSING BALANCE	-	95	280	554	830	1,110

Projected Balance sheet:

Sl. No.	Description	Amount in Rs. Thousands as at the end of the				
		1 st Yr.	2 nd Yr.	3 rd Yr.	4 th Yr.	5 th Yr.
1.	Capital Account of the Promoter	38	180	425	774	1,125
2.	Surplus from operations	142	245	349	351	355
	NET WORTH:	180	425	774	1,125	1,480
3.	Subsidy	190	190	190	190	190
4.	Loan Account	445	345	230	115	-
A.	TOTAL LIABILITIES	815	960	1,194	1,430	1,670
1.	Gross Fixed Assets	410	410	410	410	410
	Less Depreciation	40	80	120	160	200
	NET BLOCK	370	330	290	250	210
2.	Closing stocks	350	350	350	350	350
3.	Cash & Bank Balance	95	280	554	830	1,110
B.	TOTAL ASSETS	815	960	1,194	1,430	1,670