

PROJECT REPORT

Of

GYP SUM PLASTER BOARD

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Gypsum Plaster Board**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
Pin: xxxxxxxx State: xxxxxxxxx
Mobile xxxxxxxx
- 5 Product and By Product : **GYPSUM PLASTER BOARD**
- 6 Name of the project / business activity proposed : **GYPSUM PLASTER BOARD MANUFACTURING UNIT**
- 7 Cost of Project : Rs.24.29 Lakhs
- 8 Means of Finance
Term Loan Rs.16.07 Lakhs
Own Capital Rs.2.43 Lakhs
Working Capital Rs.5.8 Lakhs
- 9 Debt Service Coverage Ratio : 2.12
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 39%
- 13 Employment : 10 Persons
- 14 Power Requirement : 10 HP
- 15 Major Raw materials : Gypsum
- 16 Estimated Annual Sales Turnover (Max Utilized Capacity) : 82.96 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Building /Shed 1500 Sq ft	5.00
Plant & Machinery	12.10
Furniture & Fixtures	0.75
Working Capital Requirement	6.44
Total	24.29

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.43
Term Loan	16.07
Working Capital	5.80
Total	24.29

GYPSUM PLASTER BOARD



INTRODUCTION

Gypsum board (also known as plasterboard, wallboard, gypsum panel, sheet rock, or Drywall) is a panel made of calcium sulfate dihydrate (gypsum) with or without additives and normally pressed between a facer and a backer (typically thick sheets of paper). It is used to make interior walls and ceilings.

The plaster is mixed with fibre (typically paper and/or fibre glass), plasticizer, foaming agent, and various additives that can decrease mildew, increase fire resistance, and lower water absorption. Gypsum building materials are used in all construction types (residential, non-residential, new or refurbished), ranging from complex high-tech systems to easy to install products adapted for use by the general public.

Gypsum board is widely used for internal walls and ceilings by the construction industry, and is a material of growing importance in the do it yourself sector. Gypsum board is also a common fire barrier used in house and general building construction. Commonly gypsum boards used in walls and ceilings, in moist areas, in exterior applications, for fire resistance and area separation and special systems.

MARKET OUTLOOK

The global gypsum market is valued at \$1.49 billion in 2016, equivalent to 252 million tonnes, with 33.3% and 60.9% being consumed in the plasterboard and cement industries, respectively. The gypsum market is forecast to grow at a CAGR of 9.9% to reach nearly \$2.4 billion by 2018 and \$3.8 billion by 2026.

The plasterboard market size is estimated to grow from USD 18.07 Billion in 2016 to USD 23.85 Billion by 2021, at a CAGR of 5.7% from 2016 to 2021. The base year considered for the study is 2015 and the market size is projected from 2016 to 2021. The global gypsum board market was valued at \$22.6 bn in 2016 and is forecast to grow at a steady CAGR of 8.2% between 2017 and 2024, culminating in 2024 global sales of \$42.6 bn.

Global gypsum market demand 10,700.0 million square meters in 2014 and is expected to reach 15,804.7 million square meters by 2022, growing at a CAGR of 5.1% from 2015 to 2022. The global demand for drywall will approach 10.7 billion square meters by 2016, growing by some 8.5% annually.

TYPES OF GYPSUM PLASTER BOARD

Gypsum plaster boards are classified according to their use. Gypsum wall board has a face to which decoration may be applied. There are five types of gypsum board product that are considered standard. Innovation has created several new products now available.

- Standard Gypsum Board: Regular core, Flexible board, Type "X"- fire resistant, Moisture resistant and Plaster baseboard.
- Specialty Gypsum Board: Interior ceiling board, Mold & Moisture resistant, Shaft liner, Abuse resistant and Impact resistant.

FINANCIAL ASPECTS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	3.34	6.39	9.76	13.40
Add: Additions	2.43	-	-	-	-
Add: Net Profit	0.91	3.65	6.37	8.63	11.06
Less: Drawings	-	0.60	3.00	5.00	8.00
Closing Balance	3.34	6.39	9.76	13.40	16.45
CC Limit	5.80	5.80	5.80	5.80	5.80
Term Loan	14.28	10.71	7.14	3.57	-
Sundry Creditors	0.55	0.63	0.73	0.83	0.93
TOTAL :	23.97	23.53	23.43	23.59	23.19
APPLICATION OF FUND					
Fixed Assets (Gross)	17.85	17.85	17.85	17.85	17.85
Gross Dep.	2.39	4.45	6.23	7.76	9.09
Net Fixed Assets	15.46	13.40	11.62	10.09	8.76
Current Assets					
Sundry Debtors	4.71	5.60	6.45	7.30	8.30
Stock in Hand	3.55	4.14	4.57	5.29	5.81
Cash and Bank	0.24	0.39	0.79	0.91	0.32
TOTAL :	23.97	23.53	23.43	23.59	23.19
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	47.13	55.97	64.50	72.99	82.96
Total (A)	47.13	55.97	64.50	72.99	82.96
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	23.50	27.14	31.09	35.37	39.99
Electricity Expenses	1.12	1.23	1.34	1.46	1.57
Repair & Maintenance	0.09	0.11	0.13	0.15	0.17
Labour & Wages	8.98	9.87	10.86	11.95	13.14
Depreciation	2.39	2.06	1.78	1.53	1.32
Cost of Production	36.08	40.42	45.20	50.45	56.19
Add: Opening Stock /WIP	-	1.20	1.43	1.46	1.76
Less: Closing Stock /WIP	1.20	1.43	1.46	1.76	1.81
Cost of Sales (B)	34.88	40.20	45.17	50.15	56.13
C) GROSS PROFIT (A-B)	12.25	15.77	19.33	22.84	26.82
	25.99%	28.18%	29.96%	31.29%	32.33%
D) Bank Interest (Term Loan)	1.74	1.42	1.03	0.64	0.25
ii) Interest On Working Capital	0.64	0.64	0.64	0.64	0.64
E) Salary to Staff	6.60	7.26	7.99	8.78	9.66
F) Selling & Adm Expenses Exp.	2.36	2.80	3.22	3.65	4.15
TOTAL (D+E)	11.34	12.12	12.88	13.71	14.69
H) NET PROFIT	0.91	3.65	6.45	9.13	12.13
	1.9%	6.5%	10.0%	12.5%	14.6%
I) Taxation	-	-	0.07	0.49	1.07
J) PROFIT (After Tax)	0.91	3.65	6.37	8.63	11.06

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.43	-			
Net Profit	0.91	3.65	6.45	9.13	12.13
Depreciation & Exp. W/off	2.39	2.06	1.78	1.53	1.32
Increase In Cash Credit	5.80				
Increase In Term Loan	16.07	-	-	-	-
Increase in Creditors	0.55	0.08	0.09	0.10	0.11
TOTAL :	28.14	5.79	8.32	10.76	13.56
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	17.85	-	-	-	-
Increase in Stock	3.55	0.59	0.43	0.73	0.52
Increase in Debtors	4.71	0.88	0.85	0.85	1.00
Repayment of Term Loan	1.79	3.57	3.57	3.57	3.57
Taxation	-	-	0.07	0.49	1.07
Drawings		0.60	3.00	5.00	8.00
TOTAL :	27.90	5.64	7.92	10.64	14.16
Opening Cash & Bank Balance	-	0.24	0.39	0.79	0.91
Add : Surplus	0.24	0.15	0.39	0.12	- 0.60
Closing Cash & Bank Balance	0.24	0.39	0.79	0.91	0.32

COMPUTATION OF MANUFACTURING OF GYPSUM PLASTER BOARD**Items to be Manufactured Gypsum Plaster Board**

Manufacturing Capacity per Day		1.00	MT
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		300	MT
Year		Capacity	GYPSUM PLASTER BOARD
		Utilisation	
I		50%	150
II		55%	165
III		60%	180
IV		65%	195
V		70%	210

COMPUTATION OF RAW MATERIAL

Item Name	Quantity of Raw Material	Unit	Unit Rate of	Total CostPer Annum (100%)
Gypsum	1,200.00	tonne	2,250.00	2,700,000.00
Reinforcement	I.s			500,000.00
Packaging Materials	I.s			1,500,000.00
Total	1,200.00			4,700,000.00

Total Raw material in Rs lacs at 100% Capacity 47.00
 Cost per Tonne (In Rs) **15,666.70**

Raw Material Consumed	Capacity Utilisation	Rate	Amount (Rs.)
I	50%	15,666.70	23.50
II	55%	16,450.00	27.14
III	60%	17,272.50	31.09
IV	65%	18,136.10	35.37
V	70%	19,042.90	39.99

COMPUTATION OF SALE

Particulars	I	II	III	IV	V
Op Stock	-	5.00	6.00	6.00	7.00
Production	150.00	165.00	180.00	195.00	210.00
Less : Closing Stock(10 Days)	5.00	6.00	6.00	7.00	7.00
Net Sale	145.00	164.00	180.00	194.00	210.00
Sale Price per Tonne	32,500.00	34,125.00	35,831.00	37,623.00	39,504.00
Sale (in Lacs)	47.13	55.97	64.50	72.99	82.96

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(10 Days requirement)	1.20	1.43	1.46	1.76	1.81
Raw Material					
(30 Days requirement)	2.35	2.71	3.11	3.54	4.00
Closing Stock	3.55	4.14	4.57	5.29	5.81

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(25%)	Net Amount
Stock in Hand	3.55		
Less:			
Sundry Creditors	0.55		
Paid Stock	3.00	0.75	2.25
Sundry Debtors	4.71	1.18	3.54
Working Capital Requirement			5.80
Margin			1.93
MPBF			5.80
Working Capital Demand			5.80

BREAK UP OF LABOUR

Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		20,000.00	1	20,000.00
Plant Operator		15,000.00	1	15,000.00
Unskilled Worker		9,000.00	2	18,000.00
Helper		7,500.00	1	7,500.00
Security Guard		7,500.00	1	7,500.00
				68,000.00
Add: 10% Fringe Benefit				6,800.00
Total Labour Cost Per Month				74,800.00
Total Labour Cost for the year (In Rs. Lakhs)			6	8.98

BREAK UP OF SALARY

Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		20,000.00	1	15,000.00
Accountant cum store keeper		15,000.00	1	15,000.00
Administrative Staffs		10,000.00	2	20,000.00
Total Salary Per Month				50,000.00
Add: 10% Fringe Benefit				5,000.00
Total Salary for the month				55,000.00
Total Salary for the year (In Rs. Lakhs)			4	6.60

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased		-	-	-
Addition	-	5.00	12.10	0.75	17.85
	-	5.00	12.10	0.75	17.85
TOTAL		5.00	12.10	0.75	17.85
Less : Depreciation	-	0.50	1.82	0.08	2.39
WDV at end of Ist year	-	4.50	10.29	0.68	15.46
Additions During The Year	-	-	-	-	-
	-	4.50	10.29	0.68	15.46
Less : Depreciation	-	0.45	1.54	0.07	2.06
WDV at end of IIInd Year	-	4.05	8.74	0.61	13.40
Additions During The Year	-	-	-	-	-
	-	4.05	8.74	0.61	13.40
Less : Depreciation	-	0.41	1.31	0.06	1.78
WDV at end of IIIrd year	-	3.65	7.43	0.55	11.62
Additions During The Year	-	-	-	-	-
	-	3.65	7.43	0.55	11.62
Less : Depreciation	-	0.36	1.11	0.05	1.53
WDV at end of IV year	-	3.28	6.32	0.49	10.09
Additions During The Year	-	-	-	-	-
	-	3.28	6.32	0.49	10.09
Less : Depreciation	-	0.33	0.95	0.05	1.32
WDV at end of Vth year	-	2.95	5.37	0.44	8.76

REPAYMENT SCHEDULE OF TERM LOAN

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	16.07	-	16.07	0.44	-	16.07
	IInd Quarter	16.07	-	16.07	0.44	-	16.07
	IIIrd Quarter	16.07	-	16.07	0.44	0.89	15.17
	Ivth Quarter	15.17	-	15.17	0.42	0.89	14.28
					1.74	1.79	
II	Opening Balance						
	Ist Quarter	14.28	-	14.28	0.39	0.89	13.39
	IInd Quarter	13.39	-	13.39	0.37	0.89	12.50
	IIIrd Quarter	12.50	-	12.50	0.34	0.89	11.60
	Ivth Quarter	11.60		11.60	0.32	0.89	10.71
					1.42	3.57	
III	Opening Balance						
	Ist Quarter	10.71	-	10.71	0.29	0.89	9.82
	IInd Quarter	9.82	-	9.82	0.27	0.89	8.93
	IIIrd Quarter	8.93	-	8.93	0.25	0.89	8.03
	Ivth Quarter	8.03		8.03	0.22	0.89	7.14
					1.03	3.57	
IV	Opening Balance						
	Ist Quarter	7.14	-	7.14	0.20	0.89	6.25
	IInd Quarter	6.25	-	6.25	0.17	0.89	5.36
	IIIrd Quarter	5.36	-	5.36	0.15	0.89	4.46
	Ivth Quarter	4.46		4.46	0.12	0.89	3.57
					0.64	3.57	
V	Opening Balance						
	Ist Quarter	3.57	-	3.57	0.10	0.89	2.68
	IInd Quarter	2.68	-	2.68	0.07	0.89	1.79
	IIIrd Quarter	1.79	-	1.79	0.05	0.89	0.89
	Ivth Quarter	0.89		0.89	0.02	0.89	-
					0.25	3.57	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	3.30	5.71	8.15	10.17	12.38
Interest on Term Loan	1.74	1.42	1.03	0.64	0.25
Total	5.04	7.13	9.18	10.81	12.63
<u>REPAYMENT</u>					
Repayment of Term Loan	1.79	3.57	3.57	3.57	3.57
Interest on Term Loan	1.74	1.42	1.03	0.64	0.25
Total	3.53	4.99	4.60	4.21	3.82
DEBT SERVICE COVERAGE RATIO	1.43	1.43	2.00	2.57	3.31
AVERAGE D.S.C.R.			2.12		

COMPUTATION OF ELECTRICITY**(A) POWER CONNECTION**

Total Working Hour per day	Hours	8	
Electric Load Required	HP	10	
Load Factor		0.7460	
Electricity Charges	per unit	7.50	
Total Working Days		300	
Electricity Charges			1.34
Add : Minimim Charges (@ 10%)			

(B) DG set

No. of Working Days		300	days
No of Working Hours		0.5	Hour per day
Total no of Hour		150	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		1,200	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		0.78	
Add : Lube Cost @15%		0.12	
Total		0.90	

Total cost of Power & Fuel at 100% 2.24

Year	Capacity	Amount (in Lacs)
I	50%	1.12
II	55%	1.23
III	60%	1.34
IV	65%	1.46
V	70%	1.57

BREAK EVEN POINT ANALYSIS					
Year	I	II	III	IV	V
Net Sales & Other Income	47.13	55.97	64.50	72.99	82.96
Less : Op. WIP Goods	-	1.20	1.43	1.46	1.76
Add : Cl. WIP Goods	1.20	1.43	1.46	1.76	1.81
Total Sales	48.33	56.19	64.53	73.29	83.01
Variable & Semi Variable Exp.					
Raw Material & Tax	23.50	27.14	31.09	35.37	39.99
Electricity Exp/Coal Consumption at 85%	0.95	1.05	1.14	1.24	1.33
Wages & Salary at 60%	9.35	10.28	11.31	12.44	13.68
Selling & administrative Expenses 80%	1.89	2.24	2.58	2.92	3.32
ii) Interest On Working Capital	0.64	0.64	0.64	0.64	0.64
Repair & Maintenance	0.09	0.11	0.13	0.15	0.17
Total Variable & Semi Variable Exp	36.41	41.46	46.89	52.75	59.13
Contribution	11.91	14.73	17.64	20.54	23.89
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 15%	0.17	0.18	0.20	0.22	0.24
Wages & Salary at 40%	6.23	6.85	7.54	8.29	9.12
Interest on Term Loan	1.74	1.42	1.03	0.64	0.25
Depreciation	2.39	2.06	1.78	1.53	1.32
Selling & administrative Expenses 20%	0.47	0.56	0.64	0.73	0.83
Total Fixed Expenses	11.00	11.08	11.19	11.41	11.76
Capacity Utilization	50%	55%	60%	65%	70%
OPERATING PROFIT	0.91	3.65	6.45	9.13	12.13
BREAK EVEN POINT	46%	41%	38%	36%	34%
BREAK EVEN SALES	44.63	42.27	40.95	40.72	40.86

FINANCIAL INDICATORS					
PARTICULARS	I	II	III	IV	V
TURNOVER	47.13	55.97	64.50	72.99	82.96
GROSS PROFIT	12.25	15.77	19.33	22.84	26.82
G.P. RATIO	25.99%	28.18%	29.96%	31.29%	32.33%
NET PROFIT	0.91	3.65	6.45	9.13	12.13
PAT/SALES RATIO	1.93%	6.52%	9.99%	12.51%	14.62%
CURRENT ASSETS	8.51	10.13	11.81	13.50	14.42
CURRENT LIABILITIES	6.35	6.43	6.53	6.63	6.73
CURRENT RATIO	1.34	1.57	1.81	2.04	2.14
TERM LOAN	14.28	10.71	7.14	3.57	-
TOTAL NET WORTH	3.34	6.39	9.76	13.40	16.45
DEBT/EQUITY	4.28	1.68	0.73	0.27	-
TOTAL NET WORTH	3.34	6.39	9.76	13.40	16.45
TOTAL OUTSIDE LIABILITIES	20.63	17.14	13.67	10.20	6.73
TOL/TNW	6.18	2.68	1.40	0.76	0.41
PBDIT	5.68	7.77	9.89	11.94	14.34
INTEREST	2.38	2.06	1.67	1.28	0.88
INTEREST COVERAGE RATIO	2.39	3.77	5.93	9.36	16.23
WDV	15.46	13.40	11.62	10.09	8.76
TERM LOAN	14.28	10.71	7.14	3.57	-
FACR	1.08	1.25	1.63	2.83	-

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
45 Cm size Altrition type Disc Pulveriser with 7 H.P. Motor	1	360,000.00	360,000.00
2.5 M long 2M Dia Cylindrical Rotary Drum Calciner with coal fired roasting oven	1	500,000.00	500,000.00
Platform type weighing balance of 100 kg capacity	1	25,000.00	25,000.00
6 Nos. of 4' x 6' wooden Tables with polished Marble Top	6	25,000.00	150,000.00
Moulds Hand Tools, slurry making Tank, etc	l.s	100,000.00	100,000.00
Testing equipments	l.s	75,000.00	75,000.00
Net Amount			1,210,000.00

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