PROJECT REPORT

Of

CHALK MANUFACTURING UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Chalk Manufacturing Unit.

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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CHALK UNIT

Introduction

Chalk is a soft, white, porous, sedimentary carbonate rock, a form of limestone composed of the mineral calcite. Calcite is an ionic salt called calcium carbonate or CaCO3. It forms under reasonably deep marine conditions from the gradual accumulation of minute calcite shells (coccoliths) shed from micro-organisms called coccolithophores. Flint (a type of chert) is very common as bands parallel to the bedding or as nodules embedded in chalk. It is probably derived from sponge spicules or other siliceous organisms as water is expelled upwards during compaction. Flint is often deposited around larger fossils such as Echinoidea which may be silicified (i.e. replaced molecule by molecule by flint).

Chalk as seen in Cretaceous deposits of Western Europe is unusual among sedimentary limestones in the thickness of the beds. Most cliffs of chalk have very few obvious bedding planes unlike most thick sequences of limestone such as the Carboniferous Limestone or the Jurassic oolitic limestone. This presumably indicates very stable conditions over tens of millions of years.

Chalk has greater resistance to weathering and slumping than the clays with which it is usually associated, thus forming tall, steep cliffs where chalk ridges meet the sea. Chalk hills, known as chalk downland, usually form where bands of chalk reach the surface at an angle, so forming a scarp slope. Because chalk is well jointed it can hold a large volume of ground water, providing a natural reservoir that releases water slowly through dry seasons.

Properties of Chalk

One of the most important physical properties of chalk is its ability to store water. For industrial purposes, chalk makes a good fertilizer and cement-maker. Its permeability allows easy molding and tunneling, and its softness is useful in writing utensils.

Chalk decomposes with the application of heat, and can be used in the preparation of steel with lead ores and smelted copper. It has medicinal uses to help people with diarrhea, and is used by gymnasts and weightlifters to increase friction between surfaces. Before the Industrial

Revolution, chalk was used extensively in water wells because of its permeability, which makes it a great aquifer.

Description of Chalk Machine

Machinery for Chalk Unit includes the following:

- Chalk Machine
- Drying Oven
- Aluminium Mould

Chalk Machines are used to produce chalk substance from the raw material. With the help of this machine the work of mixing, formulation completes in a very short span.

Chalk Market Analysis

The chalk, salt, gravel, and other natural resource industry is growing exponentially all around the world. Danish companies, for example, as well as other international companies assist in the extraction of these natural resources. Chalk can be found around Danish territories. Chalk is found in the Danish underground. In addition, many leading producers, like Denmark, will continue to exploit the vastly useful resource.

Chalk Manufacturing Process

- First step is Quarrying Limestone.
- Pulverizing the chalk
- Dehydrating Gypsum.
- Shifting
- Cleaning
- Adding water to foam thick Slurry
- Mixing
- Extrusion from the die.
- Cutting into desired pieces.
- Packaging of goods.

Machinery & Equipment's required

Name	Cost
Chalk Machine	180000
Drying oven	52500
Aluminium Mould	20000
Total	2,52,500

- Cost of the machine is exclusive of GST & value of the machine varies with the change in batch size.

Land &Building required:

Land required 700 Square Feet (approx.)

Approximate construction cost for the same is 75000.

Labour Requirement:

1 Manpower is required for the chalk unit.

Includes:

1 skilled Labour

Raw Material Requirement of Chalk

- **Calcium Carbonate**
- **$CaSO_4$**

Average raw material cost per Litre: Rs. 14 -16

Chalk Unit License &registration

For Proprietor:

- Obtain the GST registration.
- Fire/ Pollution Registration as required.
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Implementation Schedule

S.N.	Activity	Time Required (in Months)
1	Acquisition Of premises	1
2	Construction (if Applicable)	1- 2 Months
3	Procurement & installation of Plant & Machinery	1
4	Arrangement of Finance	1
5	Requirement of required Manpower	1
	Total time Required (some activities shall run concurrently)	2-3 Months

Conclusion:

After completion of manufacturing process, product is ready to sell in the market. This machine can be installed with low investment & one can earn a good Margin of profit by doing this business.

PROJECT AT A GLANCE

1	Name of the Entreprenuer	:	**xx**		
2	Constitution (legal Status) :	:	xx		
3	Father's/Spouce's Name	:	**xx**		
4	Unit Address	:			
			Taluk/Block:	**xx**	
			District :	**xx**	
			Pin:		
			E-Mail :	**xx**	
			Mobile	**xx**	
5	Product and By Product	:	chalk		
6	Name of the project / business activity proposed :				
7	Cost of Project	:		**Rs.**	3.93
8	**Means of Finance**				
	Term Loan			**Rs.**	3.54 Lacs
	KVIC Margin Money			**Rs.**	25% of 3.93 Lacs (0.98 Lacs)
	Own Capital			**Rs.**	0.44 Lacs
9	Debt Service Coverage Ratio	:			
10	Pay Back Period	:			4 years 10 month
11	Project Implementation Period	:			6 months
12	Employment	:			
13	Power Requirement	:			5 KW connection
14	Major Raw materials	:			calcium carbonate
15	Estimated Annual Sales Turnover	:			5.75 Lacs (at 70% capacity)
16	Detailed Cost of Project & Means of Finance				

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	
Building & Civil Work	0.75
Plant & Machinery	2.98
Furniture & Fixtures	0.20
Pre-operative Expenses	

Contingencies	
Working Capital Requirement	0.5
Total	4.43

MEANS OF FINANCE

Particulars	**Amount**
Own Contribution	0.44
Bank Finance	3.54
working capital from bank	0.45
Total	4.43
KVIC Margin Monery	(25% of 3.93) Rs. 98,250

FINANCIAL ASSISTANCE REQUIRED

Term Loan of Rs. 3.54 Lacs and Working Capital limit of Rs. 45000

COST OF PROJECT

PARTICULARS	AMOUNT	AMOUNT	AMOUNT
		10.00%	90.00%
Building Civil Work	0.75	0.08	0.68
Plant & Machinery	2.98	0.30	2.68
Furniture & Fixtures and Other Assets	0.20	0.02	0.18
Working capital	0.50	0.05	0.45
Total	**4.43**	**0.54**	**3.99**

MEANS OF FINANCE

PARTICULARS	AMOUNT
Own Contribution	0.44
Bank Loan	3.54
Working capital Limit	0.45
Total	**4.43**

COMPUTATION OF PRODUCTION OF CHALK

Items to be Manufactured

CHALK

machine capacity	1000	Piece per hour
machine capacity per annum	4800000	Piece
1 chalk consists of	6	gram
ouput per annum	28,800.00	KG
wastage	10%	
Raw Material Requirement		
raw material per hour	6.67	KG
raw material per annum	32,000.00	KG

Production of Chalk

Production	Capacity	KG
1st year	70%	20,160
2nd year	75%	21,600
3rd year	80%	23,040
4th year	85%	24,480
5th year	90%	25,920

Raw Material	Capacity Utilisation	Rate per KG	Amount (Rs. in lacs)
1st year	70%	15.00	3.36
2nd year	75%	15.00	3.60
3rd year	80%	16.00	4.10
4th year	85%	17.00	4.62
5th year	90%	18.00	5.18

COMPUTATION OF SALE

Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	1,008	1,080	1,152	1,224
Production	20,160	21,600	23,040	24,480	25,920
Less : Closing Stock	1,008	1,080	1,152	1,224	1,296
Net Sale	**19,152**	**21,528**	**22,968**	**24,408**	**25,848**
sale price per KG	30.00	31.00	32.00	33.00	34.00
Sales (in Lacs)	5.75	6.67	7.35	8.05	8.79

BREAK UP OF LABOUR CHARGES

Particulars	Wages Per Month	No of Employees	Total Salary
Unskilled	7000	1	7000
Total Salary Per Month			7000
Total Annual Labour Charges	**(in Lacs)**		**0.84**

Utility Charges at 100% capacity (per month)		
Particulars	**value**	**Description**
Power connection required	5	KWH
consumption per day	40	units
Consumption per month	1000	units
Rate per Unit	7	Rs.
power Bill per month	7000	Rs.

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	**70%**	**75%**	**80%**	**85%**	**90%**
SALES					
Gross Sale					
Chalk	5.75	6.67	7.35	8.05	8.79
Total	**5.75**	**6.67**	**7.35**	**8.05**	**8.79**
COST OF SALES					
Raw Material Consumed	3.36	3.60	4.10	4.62	5.18
Electricity Expenses	0.84	0.92	1.02	1.12	1.23
Depreciation	0.47	0.40	0.34	0.29	0.25
Consumables	0.17	0.20	0.22	0.24	0.26
Cost of Production	4.84	5.12	5.67	6.27	6.92
Add: Opening Stock /WIP	-	0.24	0.26	0.28	0.31
Less: Closing Stock /WIP	0.24	0.26	0.28	0.31	0.35
Cost of Sales	4.60	5.11	5.64	6.24	6.89
GROSS PROFIT	**1.15**	**1.57**	**1.71**	**1.81**	**1.90**
Gross Profit %	**20%**	**23%**	**23%**	**22%**	**22%**
Interest on Term Loan	0.35	0.33	0.26	0.19	0.02
Interest on working Capital	0.05	0.05	0.05	0.05	0.05
TOTAL	**0.40**	**0.38**	**0.31**	**0.24**	**0.07**
NET PROFIT	0.75	1.19	1.40	1.57	1.83
Taxation					
PROFIT (After Tax)	0.75	1.19	1.40	1.57	1.83

PROJECTED BALANCE SHEET

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Liabilities					
Capital					
opening balance		1.19	1.88	2.58	2.65
Add:- Own Capital	0.44				
Add:- Retained Profit	0.75	1.19	1.40	1.57	1.83
Less:- Drawings	-	0.50	0.70	1.50	1.70
Closing Blance	1.19	1.88	2.58	2.65	2.78
Subsidy Reserve	0.98	0.98	0.98	-	-
Term Loan	3.24	2.64	2.04	0.46	-
Working Capital Limit	0.45	0.45	0.45	0.45	0.45
Sundry Creditors	0.17	0.17	0.20	0.23	0.26
Provisions & Other Liab	0.30	0.40	0.55	0.66	0.83
TOTAL :	**6.33**	**6.52**	**6.80**	**4.44**	**4.31**
Assets					
Fixed Assets (Gross)	3.18	3.18	3.18	3.18	3.18
Gross Dep.	0.47	0.86	1.20	1.49	1.74
Net Fixed Assets	**2.71**	**2.31**	**1.98**	**1.69**	**1.44**
FD of Subsidy	0.98	0.98	0.98		
Current Assets					
Sundry Debtors	0.38	0.56	0.61	0.67	0.73
Stock in Hand	0.35	0.50	0.56	0.62	0.69
Cash and Bank	1.90	2.17	2.68	1.47	1.49
TOTAL :	**6.33**	**6.52**	**6.80**	**4.44**	**4.31**

PROJECTED CASH FLOW STATEMENT

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
SOURCES OF FUND					
Own Margin	0.44				
Net Profit	0.75	1.19	1.40	1.57	1.83
Depriciation & Exp. W/off	0.47	0.40	0.34	0.29	0.25
Increase in Cash Credit	0.45	-	-	-	-
Increase In Term Loan	3.54	-	-	-	-
Increase in Creditors	0.17	-	0.04	0.03	0.03
Increase in Provisions & Oth lib	0.30	0.10	0.15	0.11	0.17
increase in subsidy	0.98				
TOTAL :	**7.09**	**1.69**	**1.92**	**1.99**	**2.27**
APPLICATION OF FUND					
Increase in Fixed Assets	3.18				
Increase in Stock	0.35	0.14	0.06	0.07	0.07
Increase in Debtors	0.38	0.17	0.06	0.06	0.06
Repayment of Term Loan	0.30	0.60	0.60	1.58	0.41
Increase in FD	0.98	-	-	-	
Drawings	-	0.50	0.70	1.50	1.70
Taxation	-	-	-	-	-
TOTAL :	**5.20**	**1.42**	**1.42**	**3.20**	**2.24**
Opening Cash & Bank Balance	-	1.90	2.17	2.68	1.47
Add : Surplus	1.90	0.27	0.50	- 1.21	0.03
Closing Cash & Bank Balance	**1.90**	**2.17**	**2.68**	**1.47**	**1.49**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Finished Goods					
	0.24	0.26	0.28	0.31	0.35
Raw Material					
	0.11	0.24	0.27	0.31	0.35
Closing Stock	**0.35**	**0.50**	**0.56**	**0.62**	**0.69**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

TRADITIONAL METHOD

Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	0.35				
Less : Creditors	0.17				
Paid stock	**0.19**	**10%**	**0.02**	**90%**	**0.17**
Sundry Debtors	**0.38**	**10%**	**0.04**	**90%**	**0.34**
	0.57		**0.06**		**0.51**

WORKING CAPITAL LIMIT DEMAND (from Bank) **0.45**

2nd Method		
PARTICULARS	**1st year**	**2nd year**
Total Current Assets	2.63	3.22
Other Current Liabilities	0.47	0.57
Working Capital Gap	2.17	2.65
Min Working Capital		
25% of WCG	0.54	0.66
Actual NWC	**1.72**	**2.20**
item III - IV	**1.62**	**1.99**
item III - V	**0.45**	**0.45**
MPBF (Lower of VI & VII)	**0.45**	**0.45**

3rd Method		
PARTICULARS	**1st year**	**2nd year**
Total Current Assets	2.63	3.22
Other Current Liabilities	0.47	0.57
Working Capital Gap	2.17	2.65
Min Working Capital		
25% of Current Assets	**0.66**	**0.81**
Actual NWC	**1.72**	**2.20**
item III - IV	**1.51**	**1.85**
item III - V	**0.45**	**0.45**
MPBF (Lower of VI & VII)	**0.45**	**0.45**

COMPUTATION OF DEPRECIATION

Description	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation	**15.00%**	**10.00%**	
Opening Balance	-	-	-
Addition	2.98	0.20	3.18
Total	2.98	0.20	3.18
Less : Depreciation	0.45	0.02	0.47
WDV at end of Year	**2.53**	**0.18**	**2.71**
Additions During The Year	-	-	-
Total	2.53	0.18	2.71
Less : Depreciation	0.38	0.02	0.40
WDV at end of Year	**2.15**	**0.16**	**2.31**
Additions During The Year	-	-	-
Total	2.15	0.16	2.31
Less : Depreciation	0.32	0.02	0.34
WDV at end of Year	**1.83**	**0.15**	**1.98**
Additions During The Year	-	-	-
Total	1.83	0.15	1.98
Less : Depreciation	0.27	0.01	0.29
WDV at end of Year	**1.56**	**0.13**	**1.69**
Additions During The Year	-	-	-
Total	1.56	0.13	1.69
Less : Depreciation	0.23	0.01	0.25
WDV at end of Year	**1.32**	**0.12**	**1.44**
Additions During The Year	-	-	-

Total	1.32	0.12	1.44
Less : Depreciation	0.20	0.01	0.21
WDV at end of Year	**1.12**	**0.11**	**1.23**
Less : Depreciation	0.17	0.01	0.18
WDV at end of Year	**0.96**	**0.10**	**1.05**
Less : Depreciation	0.14	0.01	0.15
WDV at end of Year	**0.81**	**0.09**	**0.90**

CALCULATION OF D.S.C.R

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	1.22	1.59	1.74	1.86	2.08
Interest on Term Loan	0.35	0.33	0.26	0.19	0.02
Total	1.57	1.91	1.99	2.05	2.09
REPAYMENT					
Instalment of Term Loan	0.30	0.60	0.60	1.58	0.41
Interest on Term Loan	0.35	0.33	0.26	0.19	0.02
Total	0.65	0.93	0.86	1.77	0.43
DEBT SERVICE COVERAGE RATIO	**2.41**	**2.07**	**2.32**	**1.16**	**4.90**
AVERAGE D.S.C.R.	**2.57**				

REPAYMENT SCHEDULE OF TERM LOAN

					Interest		11.00%
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Closing Balance**
ist	Opening Balance						
	1st month	-	3.54	3.54	-	-	3.54
	2nd month	3.54	-	3.54	0.03	-	3.54
	3rd month	3.54	-	3.54	0.03	-	3.54
	4th month	3.54	-	3.54	0.03		3.54
	5th month	3.54	-	3.54	0.03		3.54
	6th month	3.54	-	3.54	0.03		3.54
	7th month	3.54	-	3.54	0.03	0.050	3.49
	8th month	3.49	-	3.49	0.03	0.050	3.44
	9th month	3.44	-	3.44	0.03	0.050	3.39
	10th month	3.39	-	3.39	0.03	0.050	3.34
	11th month	3.34	-	3.34	0.03	0.050	3.29
	12th month	3.29	-	3.29	0.03	0.050	3.24
					0.35	0.300	
2nd	Opening Balance						
	1st month	3.24	-	3.24	0.03	0.050	3.19
	2nd month	3.19	-	3.19	0.03	0.050	3.14
	3rd month	3.14	-	3.14	0.03	0.050	3.09
	4th month	3.09	-	3.09	0.03	0.050	3.04
	5th month	3.04	-	3.04	0.03	0.050	2.99
	6th month	2.99	-	2.99	0.03	0.050	2.94
	7th month	2.94	-	2.94	0.03	0.050	2.89
	8th month	2.89	-	2.89	0.03	0.050	2.84
	9th month	2.84	-	2.84	0.03	0.050	2.79
	10th month	2.79	-	2.79	0.03	0.050	2.74
	11th month	2.74	-	2.74	0.03	0.050	2.69
	12th month	2.69	-	2.69	0.02	0.050	2.64

					0.33	**0.600**	
3rd	Opening Balance						
	1st month	2.64	-	2.64	0.02	0.050	2.59
	2nd month	2.59	-	2.59	0.02	0.050	2.54
	3rd month	2.54	-	2.54	0.02	0.050	2.49
	4th month	2.49	-	2.49	0.02	0.050	2.44
	5th month	2.44	-	2.44	0.02	0.050	2.39
	6th month	2.39	-	2.39	0.02	0.050	2.34
	7th month	2.34	-	2.34	0.02	0.050	2.29
	8th month	2.29	-	2.29	0.02	0.050	2.24
	9th month	2.24	-	2.24	0.02	0.050	2.19
	10th month	2.19	-	2.19	0.02	0.050	2.14
	11th month	2.14	-	2.14	0.02	0.050	2.09
	12th month	2.09	-	2.09	0.02	0.050	2.04
					0.26	**0.600**	
4th	Opening Balance						
	1st month	2.04	-	2.04	0.02	0.050	1.99
	2nd month	1.99	-	1.99	0.02	0.050	1.94
	3rd month	1.94	-	1.94	0.02	0.050	1.89
	4th month	1.89	-	1.89	0.02	0.050	1.84
	5th month	1.84	-	1.84	0.02	0.050	1.79
	6th month	1.79	-	1.79	0.02	0.050	1.74
	7th month	1.74	-	1.74	0.02	0.050	1.69
	8th month	1.69	-	1.69	0.02	0.050	1.64
	9th month	1.64	-	1.64	0.02	0.050	1.59
	10th month	1.59	-	1.59	0.01	0.050	1.54
	11th month	1.54	-	1.54	0.01	0.050	1.49
	12th month(Subsidy adjusted)	1.49	-	1.49	0.01	1.030	0.46
					0.19	**1.580**	
5th	Opening Balance						
	1st month	0.46	-	0.46	0.00	0.050	0.41

2nd month	0.41	-	0.41	0.00	0.050	0.36
3rd month	0.36	-	0.36	0.00	0.050	0.31
4th month	0.31	-	0.31	0.00	0.050	0.26
5th month	0.26	-	0.26	0.00	0.050	0.21
6th month	0.21	-	0.21	0.00	0.050	0.16
7th month	0.16	-	0.16	0.00	0.050	0.11
8th month	0.11	-	0.11	0.00	0.050	0.06
9th month	0.06	-	0.06	0.00	0.050	0.01
10th month	0.01	-	0.01	0.00	0.010	-
				0.02	**0.41**	

DOOR TO DOOR	58	MONTH
MORATORIUM PERIOD	6	MONTH
REPAYMENT PERIOD	52	MONTH

Supplier Details:

Kishori Kirpa Enterprises	**Address:** Mr. Naveen Bhalla 27,Shivaji Gali, Pandit Park, Krishna Nagar, Delhi-51(INDIA)

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