PROJECT REPORT

Of

RUBBER MOULDING COIR MATTING

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **RUBBER MOULDING COIR MATTING**

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 Entreprenuer		XXXXXXX			
2	Constitution (legal Status)	:	XXXXXXX			
3	Father's / Spouce's Name		XXXXXXXX			
4	Unit Address	:	XXXXXXXX			
			Taluk / Block:			
			District :	XXXXX		
			Pin:	XXXXX	State:	XXXXX
			E-Mail :	XXXXX		
			Mobile	XXXXX		
5	Product and By Product	:	**Mattress (Rubber Moulded Mats)**			
6	Name of the project / business activity proposed :		**Mattress (Rubber Moulded Mats)**			
7	Cost of Project	:	Rs25.00lac			
8	Means of Finance					
	Term Loan		Rs.14.51 Lacs			
	KVIC Margin Money	-	As per Project Eligibility			
	Own Capital		Rs.2.5 Lacs			
	Working Capital		Rs.7.99 Lacs			
9	Debt Service Coverage Ratio	:		3.33		
10	Pay Back Period	:		5	Years	
11	Project Implementation Period	:		6	Months	
12	Break Even Point	:		37%		
13	Employment	:		8	Persons	
14	Power Requirement	:		35.00	HP	
15	Major Raw materials	:	Mattress (Rubber Moulded Mats)			
16	Estimated Annual Sales Turnover	:		129.92	Lacs	
16	Detailed Cost of Project & Means of Finance					

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented / Owned
Building & Civil Work	own
Plant & Machinery	15.60
Furniture & Fixtures	0.52
Working Capital Requirement	8.88
Total	**25.00**

MEANS OF FINANCE

(Rs. In Lacs)

Particulars	Amount
Own Contribution @10%	2.50
Term Loan	14.51
Workign Capital Finance	7.99
Total	**25.00**

	General	**Special**
Beneficiary's Margin Monery (% of Project Cost)	10%	5%

PROJECT PROFILE FOR RUBBER MOULDED COIR UNIT

INTRODUCTION

Rubber backed coir products finds extensive use as flooring material. It is manufactured by hot pressing of compounded rubber based on natural, synthetic and reclaimed rubber or its blends on the back side of coir products such as mats/matting.

For the preparation of Rubber backed matting mats ,coir mattings are cut into the sizes of mats and the edges are finished with all- round rubber edging or tucked back or stitched.

PROCESS OF MANUFACTURE

Rubber and various ingredients for backing are mixed on a two roll mill and allowed to mature overnight. The compound so prepared is made into sheet of desired thickness on a mixing mill or calendar.

Prepare blanks of compounded rubber sheet of size equal to that of the coir mat to be backed. The mould is heated and sprayed with a suitable mould releasing agent and the blank rubber compound sheet is kept in the mould and the coir material to be backed is placed over the blank rubber sheet. The combination is then placed in between the platens

of a steam/electrically heated hydraulic press/hand fly press. It is then pressed at the appropriate temperature and pressure for the specified time. The press is opened and the product removed from the mould, cooled and trimmed.

INDUSTRY LOOK OUT AND TRENDS

Coir fibers are extracted from the husks surrounding the coconut. It is a common experience that fibers detached from the coconut skin are quite hard to break by simple tension, hence by pulling from both sides. Excellent properties of resistance to wear and easy availability in countries, where coconut palms are widespread, have allowed coir to be employed for a variety of uses, e.g., for manufacturing toys, bags and carpets. Coir is popularly known as the golden FIBRE. It is extracted from the fibrous husk of the coconut shell. Coconut husk is a residue from coconut production, comprising approximately 30 wt. % coir fibers and 70 wt. % coir pith. It is used to manufacture a wide range of products such as ropes, mats, mattresses, baskets, brushes and brooms. Around 50 per cent of the coconut husk is used for making coir. Mixture of coir fiber and latex is steam heated, pressed and vulcanized to produce mattresses. Types & Structure of Coir Fiber There are two main types of coir fiber first is Brown Coir, from fully ripened coconut husks; strong and resistant to abrasion, it is used in brushes, floor mats, and upholstery padding and White Coir, from husks of coconuts harvested just before they ripen; softer and less strong, it is spun into yarn, used for ropes and mats. Uses and Applications A small amount is also made into twine. Pads of curled brown coir fibre, made by needle felting (a machine technique that mats the fibres together) are shaped and cut to fill mattresses and for use in erosion control on river banks and hillsides. A major proportion of brown coir pads are sprayed with rubber latex; bonds the fibers together (rubberized coir) to be used as upholstery padding for the automobile industry in Europe. The material is also used for insulation and packaging. The major use of white coir is in rope manufacture. Mats of woven coir fiber are made from the finer grades of bristle and white fiber using hand or mechanical looms. Coir is recommended as substitute for milled peat moss because it is free of bacterial and fungal spores.

MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:

With the present growth of furniture industry and the high cost of foam rubber, there is a tremendous scope for the use of rubberized coir as a total substitute for foam rubber. For mattresses and in upholstery, it can be used in combination with foam rubber. The total production of coir around 3 lakh tons valued at Ra.1000 crores.There is a huge potential to expand coir production because only 28% of the raw material is available for production.

Coir geo-textiles have been used by Konkan Railways on the rail embankments. They have been used in some of the Kerala districts road embankments in Idduki, bunds in Kuttanad, Irrigation canals in Muvatuppuzha and for hardening the marshy land in the NH-bypass in Kozhikode. Driving factors for demand of rubberized coir is the present growth of furniture industry and the high cost of foam rubber for mattresses and in upholstery, it can be used in combination with foam rubber.

BASIS AND PRESUMTIONS

The Project Profile is based on 8 working hours for2 shifts in a day and 25 days in a month and the Break Even efficiency has been calculated on 70%, 80%, 90%, 90% and 100% capacity utilization.

- The rate of interest both for fixed asset and working capital have been taken as 11.5% p.a.

- **TECHNICAL ASPECTS**

Installed Production capacity per day	:	400 mats
Number of Shift per day	:	2
Working days p.a	:	300 days
Capacity Utilization		
-First year	:	70%
-Second year	:	80%

-Third year	:	90%
-Fourth year	:	90%
-Fifth year	:	100%
Rate of Average Sales Realization	:	Rs. 160 per mat
Rate of Average cost of raw material (Including cost of matting & rubber)	:	Rs.115
Interest on term Loan	:	11.50%
Interest on working capital	:	11.50%
Manpower requirement		
Supervisor	:	1
Skilled worker	:	16
Total HP required	:	35HP

All the machineries and equipments mentioned in the Project profile are of indigenous make and are of medium price.

PLANT & MACHINERY			
PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Coir Sheet Machine	1.00	5,50,000.00	5,50,000.00
Coir Rope Untwisting Machine	1.00	3,00,000.00	3,00,000.00
Hydraulic Press	2.00	1,00,000.00	2,00,000.00
Water tanks	1.00	60,000.00	60,000.00
Ball Mill Vulcanizing Chamber, and other equipments band saw cutting machine		4,50,000.00	4,50,000.00
TOTAL			**15,60,000.00**

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Capital Account	2.50	2.50	2.50	2.50	2.50
Retained Profit	9.92	21.66	34.71	47.10	61.72
Term Loan	14.51	10.88	7.25	3.63	- 0.01
Cash Credit	7.99	7.99	7.99	7.99	7.99
Sundry Creditors	2.25	2.58	2.90	2.90	3.22
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	**37.53**	**46.00**	**55.79**	**64.60**	**75.95**
APPLICATION OF FUND					
Fixed Assets (Gross)	16.12	16.12	16.12	16.12	16.12
Gross Dep.	2.37	4.40	6.14	7.62	8.87
Net Fixed Assets	13.75	11.72	9.98	8.50	7.25
Current Assets					
Sundry Debtors	4.33	5.10	5.74	5.76	6.38
Stock in Hand	6.80	9.62	10.82	10.82	12.02
Cash and Bank	10.14	16.82	26.23	36.19	46.65
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	**37.53**	**46.00**	**55.79**	**64.60**	**75.95**
	-	-	-	-	-

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Share Capital	2.50	-			
Reserve & Surplus	11.02	13.05	16.31	15.49	18.27
Depriciation & Exp. W/off	2.37	2.04	1.74	1.48	1.26
Increase in Cash Credit	7.99	-	-	-	-
Increase In Term Loan	14.51	-	-	-	-
Increase in Creditors	2.25	0.32	0.32	-	0.32
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	**41.00**	**15.44**	**18.41**	**17.01**	**19.90**
APPLICATION OF FUND					
Increase in Fixed Assets	16.12	-	-	-	-
Increase in Stock	6.80	2.81	1.20	-	1.20
Increase in Debtors	4.33	0.77	0.64	0.02	0.62
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	3.63	3.63	3.63	3.63
Taxation	1.10	1.30	3.26	3.10	3.65
TOTAL :	**30.86**	**8.76**	**9.01**	**7.05**	**9.44**
Opening Cash & Bank Balance	-	10.14	16.82	26.23	36.19
Add : Surplus	10.14	6.68	9.40	9.96	10.46
Closing Cash & Bank Balance	**10.14**	**16.82**	**26.23**	**36.19**	**46.65**

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	129.92	152.96	172.16	172.80	191.36
Total (A)	**129.92**	**152.96**	**172.16**	**172.80**	**191.36**
B) COST OF SALES					
Raw Mateiral Consumed	96.60	110.40	124.20	124.20	138.00
Elecricity Expenses	3.07	3.51	3.95	3.95	4.39
Repair & Maintenance	-	1.53	1.72	1.73	1.91
Labour & Wages	10.56	11.62	12.78	14.06	15.46
Depriciation	2.37	2.04	1.74	1.48	1.26
Consumables and Other Expenses	2.60	3.06	3.44	3.46	3.83
Cost of Production	115.19	132.15	147.83	148.86	164.85
Add: Opening Stock /WIP	-	3.58	4.10	4.61	4.61
Less: Closing Stock /WIP	3.58	4.10	4.61	4.61	5.12
Cost of Sales (B)	111.61	131.64	147.31	148.86	164.33
C) GROSS PROFIT (A-B)	18.31	21.32	24.85	23.94	27.03
	14%	**14%**	**14%**	**14%**	**14%**
D) Bank Interest (Term Loan)	1.25	1.51	1.09	0.68	0.26
Bank Interest (C.C. Limit)	0.80	0.80	0.80	0.80	0.80
E) Salary to Staff	2.64	2.90	3.19	3.51	3.87
F) Selling & Adm Expenses Exp.	2.60	3.06	3.44	3.46	3.83
TOTAL (D+E)	**7.29**	**8.27**	**8.53**	**8.45**	**8.75**
H) NET PROFIT	11.02	13.05	16.31	15.49	18.27
I) Taxation	1.10	1.30	3.26	3.10	3.65
J) PROFIT (After Tax)	9.92	11.74	13.05	12.39	14.62

COMPUTATION OF MANUFACTURING OF COIR MATTRESS

Items to be Manufactured **Mattress (Rubber Moulded Mats)**

Manufacturing Capacity shift	-	200	Matts
(SIZE 45 CM* 75 CM)	-		
No of Shifts		2	
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		1,20,000.00	
Year		Capacity	MT
		Utilisation	
IST YEAR		70%	84,000
IIND YEAR		80%	96,000
IIIRD YEAR		90%	1,08,000
IVTH YEAR		90%	1,08,000
VTH YEAR		100%	1,20,000

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Recovery	Unit Rate of / MT	Total Cost Per Annum (100%)
Raw Material	100%	1,20,000.00	100%	115.00	138.00
			Total (Rounded off in lacs)		138.00

Annual Consumption cost (In Lacs) 138.00

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	70%	96.60
IIND YEAR	80%	110.40
IIIRD YEAR	90%	124.20
IVTH YEAR	90%	124.20
VTH YEAR	100%	138.00

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	2,800	3,200	3,600	3,600
Production	84,000	96,000	1,08,000	1,08,000	1,20,000
	84,000	98,800	1,11,200	1,11,600	1,23,600
Less : Closing Stock	2,800	3,200	3,600	3,600	4,000
Net Sale	81,200	95,600	1,07,600	1,08,000	1,19,600
Sale Price per MT	160.00	160.00	160.00	160.00	160.00
Sale (in Lacs)	**129.92**	**152.96**	**172.16**	**172.80**	**191.36**

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required			35	
Load Factor			0.7460	
Electricity Charges		per unit	7.00	
Total Working Days			300	
Electricity Charges (8 Hrs Per day)				4,38,648.00
Add : Minimim Charges (@ 10%)				
(B) D.G. SET				
No. of Working Days			300	days
No of Working Hours			-	Hour per day
Total no of Hour			-	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			-	
Cost of Diesel			65.00	Rs. / Ltr
Total cost of Diesel			-	
Add : Lube Cost @15%			-	
Total			-	
Total cost of Power & Fuel at 100%				4.39
Year		**Capacity**		**Amount**
				(in Lacs)
IST YEAR		70%		3.07
IIND YEAR		80%		3.51
IIIRD YEAR		90%		3.95
IVTH YEAR		90%		3.95
VTH YEAR		100%		4.39

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(15 Days requirement)	3.58	4.10	4.61	4.61	5.12
Raw Material					
(10 Days requirement)	3.22	5.52	6.21	6.21	6.90
Closing Stock	**6.80**	**9.62**	**10.82**	**10.82**	**12.02**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			6.80
Sundry Debtors			4.33
		Total	11.13
Sundry Creditors			2.25
Working Capital Requirement			**8.88**
Margin			0.89
Working Capital Finance			**7.99**

BREAK UP OF LABOUR

Particulars		Wages Per Month	No of Employees	Total Salary
Skilled Worker		7,000.00	10	70,000.00
Unskilled Worker		5,000.00	2	10,000.00
				80,000.00
Add: 10% Fringe Benefit				8,000.00
Total Labour Cost Per Month				88,000.00
Total Labour Cost for the year (In Rs. Lakhs)				10.56

BREAK UP OF SALARY

Particulars		Salary Per Month	No of Employees	Total Salary
Manager		12,000.00	1	12,000.00
Accountant		8,000.00	1	8,000.00
Total Salary Per Month				20,000.00
Add: 10% Fringe Benefit				2,000.00
Total Salary for the month				22,000.00
Total Salary for the year (In Rs. Lakhs)				2.64

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	**TOTAL**
Rate of Depreciation		**10.00%**	**15.00%**	**10.00%**	
Opening Balance	Leased	-	-	-	-
Addition	-	-	15.60	0.52	16.12
	-	-	15.60	0.52	16.12
Less : Depreciation	-	-	2.34	0.03	2.37
WDV at end of Ist year	-	-	13.26	0.49	13.75
Additions During The Year	-	-	-	-	-
	-	-	13.26	0.49	13.75
Less : Depreciation	-	-	1.99	0.05	2.04
WDV at end of IInd Year	-	-	11.27	0.44	11.72
Additions During The Year	-	-	-	-	-
	-	-	11.27	0.44	11.72
Less : Depreciation	-	-	1.69	0.04	1.74
WDV at end of IIIrd year	-	-	9.58	0.40	9.98
Additions During The Year	-	-	-	-	-
	-	-	9.58	0.40	9.98
Less : Depreciation	-	-	1.44	0.04	1.48
WDV at end of IV year	-	-	8.14	0.36	8.50
Additions During The Year	-	-	-	-	-
	-	-	8.14	0.36	8.50
Less : Depreciation	-	-	1.22	0.04	1.26
WDV at end of Vth year	-	-	6.92	0.32	7.25

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	14.51	14.51	-	-	14.51
	Iind Quarter	14.51	-	14.51	0.42	-	14.51
	IIIrd Quarter	14.51	-	14.51	0.42	-	14.51
	Ivth Quarter	14.51	-	14.51	0.42	-	14.51
					1.25	-	
IIND YEAR	Opening Balance						
	Ist Quarter	14.51	-	14.51	0.42	0.91	13.60
	Iind Quarter	13.60	-	13.60	0.39	0.91	12.69
	IIIrd Quarter	12.69	-	12.69	0.36	0.91	11.79
	Ivth Quarter	11.79		11.79	0.34	0.91	10.88
					1.51	3.63	
IIIRD YEAR	Opening Balance						
	Ist Quarter	10.88	-	10.88	0.31	0.91	9.97
	Iind Quarter	9.97	-	9.97	0.29	0.91	9.07
	IIIrd Quarter	9.07	-	9.07	0.26	0.91	8.16
	Ivth Quarter	8.16		8.16	0.23	0.91	7.25
					1.09	3.63	
IVTH YEAR	Opening Balance						
	Ist Quarter	7.25	-	7.25	0.21	0.91	6.35
	Iind Quarter	6.35	-	6.35	0.18	0.91	5.44
	IIIrd Quarter	5.44	-	5.44	0.16	0.91	4.53
	Ivth Quarter	4.53		4.53	0.13	0.91	3.63
					0.68	3.63	
VTH YEAR	Opening Balance						
	Ist Quarter	3.63	-	3.63	0.10	0.91	2.72
	Iind Quarter	2.72	-	2.72	0.08	0.91	1.81
	IIIrd Quarter	1.81	-	1.81	0.05	0.91	0.90
	Ivth Quarter	0.90		0.90	0.03	0.91	- 0.01
					0.26	3.63	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
CASH ACCRUALS	12.28	13.78	14.79	13.87	15.88
Interest on Term Loan	1.25	1.51	1.09	0.68	0.26
Total	13.54	15.29	15.88	14.55	16.14
REPAYMENT					
Instalment of Term Loan	3.63	3.63	3.63	3.63	3.63
Interest on Term Loan	1.25	1.51	1.09	0.68	0.26
Total	4.88	5.14	4.72	4.31	3.89
DEBT SERVICE COVERAGE RATIO	**2.77**	**2.98**	**3.36**	**3.37**	**4.14**
AVERAGE D.S.C.R.			**3.33**		

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	129.92	152.96	172.16	172.80	191.36
Less : Op. WIP Goods	-	3.58	4.10	4.61	4.61
Add : Cl. WIP Goods	3.58	4.10	4.61	4.61	5.12
Total Sales	**133.50**	**153.47**	**172.67**	**172.80**	**191.87**
Variable & Semi Variable Exp.					
Raw Material & Tax	96.60	110.40	124.20	124.20	138.00
Electricity Exp/Coal Consumption at 85%	2.61	2.98	3.36	3.36	3.73
Manufacturing Expenses 80%	2.08	3.67	4.13	4.15	4.59
Wages & Salary at 60%	7.92	8.71	9.58	10.54	11.60
Selling & adminstrative Expenses 80%	2.08	2.45	2.75	2.76	3.06
Intt. On Working Capital Loan	0.80	0.80	0.80	0.80	0.80
Total Variable & Semi Variable Exp	**112.09**	**129.01**	**144.82**	**145.81**	**161.78**
Contribution	**21.42**	**24.46**	**27.85**	**26.99**	**30.09**
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.52	0.92	1.03	1.04	1.15
Electricity Exp/Coal Consumption at 15%	0.46	0.53	0.59	0.59	0.66
Wages & Salary at 40%	5.28	5.81	6.39	7.03	7.73
Interest on Term Loan	1.25	1.51	1.09	0.68	0.26
Depreciation	2.37	2.04	1.74	1.48	1.26
Selling & adminstrative Expenses 20%	0.52	0.61	0.69	0.69	0.77
Total Fixed Expenses	**10.40**	**11.41**	**11.53**	**11.50**	**11.82**
Capacity Utilization	**70%**	**80%**	**90%**	**90%**	**100%**
OPERATING PROFIT	**11.02**	**13.05**	**16.31**	**15.49**	**18.27**
BREAK EVEN POINT	**34%**	**37%**	**37%**	**38%**	**39%**
BREAK EVEN SALES	**64.81**	**71.62**	**71.51**	**73.64**	**75.36**

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