PROJECT PROFILE FOR COIR MAT SHEARING/STENCILLING UNIT

PRODUCT	**:**	**PVC MAT NO2 SIZE**
PRODUCTION CAPACITY (P.A)		
(100% CAPACITY)	**:**	**900000 PIECES**
VALUE	**:**	**RS. 1602.00 LAKHS**
MONTH & YEAR OF PREPARATION	**:**	**JUNE 2018**
PREPARED BY	**:**	**COIR BOARD, MINISTRY OF MSME, GOVT OF INDIA**

• INTRODUCTION

The shearing process is aimed so as to cut the top portion of the pile structure uniformly. Trimming is performed after shearing. The process of printing is used to achieve ornamentation and improve the aesthetic sense of the final product. The designs and patterns with attractive shade are applied on coir products by printing for achieving value addition and marketability. Designs suitable for various seasons, meeting with the trends and tastes of consumers of different countries is important. The designs are made available to the product sector as design cards for incorporating them to their products.

• PROCESS OF MANUFACTURE

The PVC Mats of NO2 size are purchased from the market and sheared and printed. Shearing machine does the shearing. In the shearing machine, there is a cutting arrangement, which consist of highly revolving spiral blade and a fixed ledger blade. The mat is pressed in between the feed rollers and the cutting edge and cutting arrangement during the shearing process. During the passage, the upper portion of the mat comes in to contact with the cutting arrangement and shearing takes place. The distance between the feed roller and cutting arrangement can be adjusted according to the pile height of the mat produced. The shearing is conducted after smoking so as to keep the uniformity of the brush structure.

In trimming, the brush at the edges of the mat is cut uniformly so as to offer a neat edge to the mat using big scissors. Trimming can also be done by a trimming machine, which works almost in the same principle as for shearing machine.

The printing method most commonly adopted in the coir industry is stenciling with the use of stencils. The organic or inorganic pigments in suitable formulation may be used in the printing of coir as they are opaque and do not have the shortcoming of being masked by the colour of the surface on which they are deposited. The use of ready mixed paints, diluted to the required consistency with suitable thinners or the application of pigments dispersed in film forming components based on aqueous emulsion lead to prints of improved fastness characteristics. The printing requires limited quantity of dyestuffs, as it is impressed on the top surface only.

The computer aided design help in developing various patterns for the coir products effectively and meticulously. The design and the colour are sketched with the help of certain software in the computer. The computer-aided design enables a pre-manufacturing outlook of the proposed design. With the assistance of CAD, maximum speed, accuracy and efficacy can be achieved in evolving designs and drawing and preparing additional copies of the designs.

BASIS AND PRESUMTIONS

- The Project Profile is based on 8 working hours forsingle 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 12.5% p.a.

• TECHNICAL ASPECTS

Installed Production capacity per machine per day		: 3000 pieces
Number of Shift per day	:	1
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. 178 Per mat
Rate of Average cost (Raw materials)	:	Rs. 145 per mat
Interest on term Loan	:	12.50%
Interest on working capital	:	12.50%

Manpower requirement

Supervisor	:	1
Skilled worker	:	22
Unskilled workers	:	10
Miscellaneous workers	:	10

- **FINANCIAL ASPECTS**

i) Cost of Project

		Amount
• Land	:	Lease/owned
• Work shed	:	Leased
• Machinery &Equipment	:	Rs.1879000/-
• Working Capital	:	Rs.621000/-

Total	**:**	**Rs. 2500000/-**

Sl. No	Description of machines &equipments	Qty	Amount (Rs)
1	Compressor 15 HP	1	320000.00
2	Gun	20	100000.00
3	Shearing machine 5 HP	2	600000.00
4	Trimming machine 1 HP	2	350000.00
5	Printing Table/ Structures etc		200000.00
6	Effluent treatment plant (ETP)		309000.00
Total			1879000.00

ii) Means of Finance

- Promoters Capital 5% : Rs.125000/-
- Bank Term loan 95% : Rs.1785000/-
- WC Loan from Bank 95% : Rs.590000/-

Total : Rs.2500000/-

DETAILS OF THE PROFITABILITY OF THE PROJECT

Rs.in Lakhs

Years		1	2	3	4	5
Installed Production capacity per machine/day	Nos	3000.00	3000.00	3000.00	3000.00	3000.00
Number of shift/day		1	1	1	1	1
Working days per annum		300	300	300	300	300
Installed	Nos	900000	900000	900000	900000	900000

production capacity per annum						
Capacity utilization		70%	80%	90%	90%	100%
Annual production quantity		630000	720000	810000	810000	900000
Annual Sales Realization	Rs. 178	**1121.40**	**1281.60**	**1441.80**	**1441.80**	**1602.00**
Cost of Production						
Cost of raw material	Rs.145	913.50	1044.00	1174.50	1174.50	1305.00
Chemicals required for stenciling		126.00	144.00	162.00	162.00	180.00
Spares, Repairs & maintenance	1%	0.19	0.21	0.23	0.25	0.28
Power cost		0.71	0.81	0.91	0.91	1.02
Wages & salary		60.65	69.31	77.98	77.98	86.64
Cost of Production		**1101.05**	**1258.33**	**1415.62**	**1415.64**	**1572.93**
Gross Profit		**20.35**	**23.27**	**26.18**	**26.16**	**29.07**
Lease rent		1.20	1.40	1.60	1.80	2.00
Administrative & selling expenses	1.00%	11.21	12.82	14.42	14.42	16.02
Interest on Term Loan		1.85	2.00	1.67	0.57	0.24
Interest on Working capital		0.73	0.73	0.73	0.73	0.73
Depreciation of machinery		1.89	1.89	1.89	1.89	1.89
Total		**16.88**	**18.84**	**20.31**	**19.41**	**20.88**
Net Profit		**3.48**	**4.45**	**5.88**	**6.76**	**8.19**

- **ESTIMATION OF BREAK EVEN POINT**

Rs in Lakhs

Particulars	1	2	3	4	5
Capacity utilization	70%	80%	90%	90%	100%
Break-even point	82%	80%	77%	73%	71%
Break even Production	518158	577893	622787	594558	639786

- **DEBT SERVICE COVERAGE RATIO**

Rs in Lakhs

Particulars	1	2	3	4	5
Capacity utilization	70%	80%	90%	90%	100%
DSCR	2.30	1.82	2.22	2.93	3.66
Average DSCR	2.59				
DSCR weighted average	2.48				

- **WORKING CAPITAL REQUIREMENTS**

Rs in Lakhs

Particulars	1	2	3	4	5
Capacity utilization	70%	80%	90%	90%	100%
Variable Cost	1101.05	1258.33	1415.62	1415.64	1572.93
Fixed Cost	16.88	18.84	20.31	19.41	20.88
Working capital gap	6.21	7.10	8.00	8.04	8.95