

PROJECT PROFILE FOR MINI TUFTING UNIT

PRODUCT	:	PVC MAT
PRODUCTION CAPACITY (P.A) (100% CAPACITY)	:	150000SQ.METERE
VALUE	:	RS.495 LAKHS
MONTH & YEAR OF PREPARATION	:	JUNE 2018
PREPARED BY	:	COIR BOARD, MINISTRY OF MSME, GOVT OF INDIA

• INTRODUCTION

. PVC backed non-woven mat in 50cm width and different length and pile height and PVC thickness can be adjusted by cutting and doctor blade. Cutting head has a spreading platform for PVC/Latex emulsion and device for controlling its thickness.

• PROCESS OF MANUFACTURE

Hanks of coir yarn are wound into spools by using spool winding machines. Hanks are placed on the flyers supplied with this machine and yarn is taken through yarn tensioners and attached to the empty spools on the winding drum. When the machines start the winding drum rotates and the yarn is wound into spools. The yarn released from the spools is first chopped into equal preset lengths and thickly implanted vertically onto the PVC resin/latex sheet by passing the materials through a chute. The pile height is controlled for achieving the required thickness of the sheet.

A conveyor with heat resistant Teflon belt running along the length of the machine and movement of this conveyor is regulated by the belt aligner. The conveyor belt is Teflon

coated, capable of withstanding temperature up to 250°C, so as to facilitate easy removal of the sheet after cooling.

The conveyor in its forward movement passes over the heating oven and cooling zone and by doing so, the bits of coir yarn gets implanted family over the PVC/Latex base and forms the mats. The mat can be rolled out of the machine in continuous length or cutting to mat size by longitudinal and cross cutting. Starting from the creel stand to the delivery end, the machine performs automatically.

BASIS AND PRESUMPTIONS

- The Project Profile is based on 8 working hours for 2 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 day	:	250 sq.meter
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. 330 per sq.meter
Rate of Average cost of raw material	:	Rs.300

Interest on term Loan : 12.50%

Interest on working capital : 12.50%

Manpower requirement

Skilled worker : 2

Unskilled worker : 6

Total HP required : 12 HP

• **FINANCIAL ASPECTS**

i) Cost of Project

	Amount
• Land	: Lease/owned
• Work shed	: Lease/owned
• Machinery & Equipments	: Rs.1945000/-
• Working Capital	Rs.555000/-

Total	: Rs. 2500000/-

Sl. No	Description of machines & equipments
1	Creel Stands to carry yarn in spools
2	Pre heated to eliminate excess moisture in yarn
3	Motorized stirrer/Pulveriser unit for PVC/ Latex emulsion
4	Cutting head to cut the yarn into bits as per pile height of mat
5	Belt joining device
6	Teflon conveyor
7	Heating panels of required quantities
8	Cooling zone of required length
9	Roll winding device
10	Electrical panel board

ii) Means of Finance

• Promoters Capital	5%	:	Rs. 125000/-
• Bank Term loan	95%	:	Rs.1848000/-
• WC Loan from Bank	95%	:	Rs. 527000/-

Total		:	Rs.2500000/-

DETAILS OF THE PROFITABILITY OF THE PROJECT

Rs.in Lakhs

Years		1	2	3	4	5
Installed Production capacity per set of frame per day	<i>sq.meter</i>	250.00	250.00	250.00	250.00	250.00
Number of machine		1	1	1	1	1
Number of shift/day		2	2	2	2	2
Working days per annum		300	300	300	300	300
Installed production capacity per annum		150000	150000	150000	150000	150000
Capacity utilization		70%	80%	90%	90%	100%
Annual production quantity	<i>sq.meter</i>	105000	120000	135000	135000	150000
Annual Sales Realization	<i>Rs. 330</i>	346.50	396.00	445.50	445.50	495.00
Cost of Production						
Cost of raw material	Rs. 300	315.00	360.00	405.00	405.00	450.00
Power cost		1.15	1.32	1.48	1.48	1.65
Repairs & maintenance	2.00%	0.39	0.43	0.47	0.52	0.57
Insurance		0.15	0.15	0.15	0.15	0.15

Wages & salary		9.41	10.75	12.10	12.10	13.44
Cost of Production		326.10	372.65	419.20	419.25	465.81
Gross Profit		20.4	23.35	26.3	26.25	29.19
Administrative & selling expenses	2.00%	6.93	7.92	8.91	8.91	9.90
Rent		0.15	0.15	0.15	0.15	0.15
Interest on Term Loan		1.92	2.05	1.72	0.59	0.25
Interest on Working capital		0.66	0.66	0.66	0.66	0.66
Depreciation of machinery		1.95	1.95	1.95	1.95	1.95
Total		11.61	12.73	13.39	12.26	12.91
Net Profit		8.80	10.62	12.92	13.99	16.28

ESTIMATION OF BREAK EVEN POINT

Rs in Lakhs

Particulars	1	2	3	4	5
Capacity utilization	70%	80%	90%	90%	100%
Break-even point	55%	53%	50%	45%	43%
Break even Production	58215	63830	66976	61186	64400

• DEBT SERVICE COVERAGE RATIO

Rs in Lakhs

Particulars	1	2	3	4	5
Capacity utilization	70%	80%	90%	90%	100%
DSCR	3.86	3.06	3.74	4.99	6.22
Average DSCR	4.38				
DSCR weighted average	4.20				

- **WORKING CAPITAL REQUIREMENTS**

Rs in Lakhs

Particulars	1	2	3	4	5
Capacity utilization	70%	80%	90%	90%	100%
Variable Cost	326.10	372.65	419.20	419.25	465.81
Fixed Cost	11.61	12.73	13.39	12.26	12.91
Working capital gap	5.55	6.35	7.15	7.19	8.00