**PROJECT PROFILE FOR CURLED COIR PRODUCTION UNIT**

**PRODUCT : CURLED COIR ROPE**

**PRODUCTION CAPACITY (P.A)**

**(100% CAPACITY) : 330 TONS**

**VALUE : RS.86.63 LAKHS**

**MONTH & YEAR OF PREPARATION : JUNE 2018**

**PREPARED BY : COIR BOARD, MINISTRY OF MSME,**

 **GOVT OF INDIA**

* **INTRODUCTION**

Curled coir rope is a product made out of mechanically extracted coir fibre by regulated and even feeding of the fibres with the help of a mechanical arrangement in curling machines to form a thick strand of evenly distributed parallelized fibers which is processed further to form twisted curled rope of continuous length. The texture of machine twisted curled fibre shall be hard twisted with curls evenly distributed along the length. Curled coir ropes are used in Coir mattress, Sofa, Couches in automobile and locomotive seats.

* **PROCESS OF MANUFACTURE**

Coir curling unit consist of a set of machineries used to produce curled coir rope out of Coir fiber. The coconuts are de-husked and the husks are soaked in water for a few days and then beaten in a Disintegrator and Decorticator set to remove the coir fibre. This fibre is then cleaned in Turbo Cleaner and spread out under the sun for drying. The dry fibre is then sieved in Revolving Screener to remove any pith, dust and baby fibre.

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beaten in a Disintegrator and Decorticator set to remove the coir fibre. This fibre is then cleaned in Turbo Cleaner and spread out under the sun for drying. The dry fibre is then sieved in Revolving Screener to remove any pith, dust and baby fibre. This decorticated cleaned fibre is hand-fed into the spinning and curling machine to get the curled coir in the form of rolls.

These curled coir rolls are stored for 2 months in a dry, moisture-free and cool place. The 2 month long storage period helps to set the curl in the coir, thus making coir springs, to give springy effect in the mattress.

* **BASIS AND PRESUMTIONS**
* The Project Profile is based on 8 working hours in a day and 25 days in a month and the Break Even efficiency has been calculated on 70%, 75%, 80%, 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 shift/machine : 0.28 MT per shift

Number of curling machine : 2

Number of shift per day : 2

Working days p.a : 300 days

Yield wastage : 5%

Capacity Utilization

-First year : 70%

-Second year : 75%

-Third year : 80%

-Fourth year : 90%

-Fifth year : 100%

Rate of Average Sales Realization : Rs. 25000/- per ton

Rate of average cost of raw material : Rs.16000

Interest on term loan : 12.50%

Interest on working capital : 12.50%

**Manpower requirement**

 Supervisor : 1

 Skilled worker : 8

 Indirect workers : 14

Total HP required : 24 HP

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

* **FINANCIAL ASPECTS**

**i) Cost of Project**

 **Amount**

* Land : Lease/owned
* Work shed : Rs.400000/-
* Machinery &Equipments : Rs.1502000/-
* Working Capital Rs. 598000/-

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

 **---------------------**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.****No** | **Description of machines &equipments** | **Qty** | **Amount (Rs)** |
| 1 | Hackling Machine ( Single shaft ) – 5 HP | 1 |  100000.00 |
| 2 | Curling machine – 7 HP (5 HP+ 2 HP) | 2 | 1300000.00 |
| 3 | Winding machine – 2 HP | 1 |  50000.00 |
| 4 | Electrical fitting & Panel board  | …. |  52000.00 |
| **Total** |  | 1502000.00 |

**ii) Means of Finance**

* Promoters Capital 5% : Rs. 125000/-
* Bank Term loan 95% : Rs.1807000/-
* WC Loan from Bank 95% : Rs. 568000/- -----------------------

**Total : Rs.2500000/-**

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* **DETAILS OF THE PROFITABILITY OF THE PROJECT**

**Rs.in Lakhs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Years** |  | **1** | **2** | **3** | **4** | **5** |
| Installed Production capacity/machine/day | Tons | 0.275 | 0.275 | 0.275 | 0.275 | 0.275 |
| Number of machines |  | 2 | 2 | 2 | 2 | 2 |
| Number of shift/day |  | 2 | 2 | 2 | 2 | 2 |
| Working days per annum |  | 300 | 300 | 300 | 300 | 300 |
| Installed production capacity per annum |  | 330 | 330 | 330 | 330 | 330 |
| Capacity utilization |  | 70% | 75% | 80% | 90% | 100% |
| Annual production quantity | Tons | 243 | 260 | 277 | 312 | 347 |
| **Annual Sales Realization** | Rs. 25000 | 60.64 | 64.97 | 69.30 | 77.96 | 86.63 |
| Cost of Production  |
| Raw material requirement | Tons | 243 | 260 | 277 | 312 | 347 |
| Cost of raw material | Rs. 16000 | 38.81 | 41.58 | 44.35 | 49.90 | 55.44 |
| Power cost |  | 1.60 | 1.71 | 1.83 | 2.06 | 2.28 |
| Spares, Repairs & maintenance | 2% | 0.30 | 0.33 | 0.36 | 0.40 | 0.44 |
| Wages & salary |  | 8.65 | 9.27 | 9.89 | 11.12 | 12.36 |
| Insurance |  | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| **Cost of Production** |  | 49.42 | 52.95 | 56.49 | 63.54 | 70.58 |
| **Gross Profit** |  | **11.22** | **12.02** | **12.81** | **14.42** | **16.05** |
| Interest on Term Loan |  | 1.87 | 2.01 | 1.68 | 0.57 | 0.25 |
| Interest on Working capital |  | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Depreciation of machinery |  | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| Depreciation of building |  | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| **Total** |  | **4.28** | **4.42** | **4.09** | **2.98** | **2.66** |
| **Net Profit** |  | **6.94** | **7.6** | **8.72** | **11.44** | **13.39** |

* **ESTIMATION OF BREAK EVEN POINT**

Rs in Lakhs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Particulars** | **1** | **2** | **3** | **4** | **5** |
|  | 70% | 75% | 80% | 90% | 100% |
| Break-even point | 68% | 66% | 56% | 33% | 26% |
| Break even Production | 165 | 171 | 156 | 104 | 89 |

* **DEBT SERVICE COVERAGE RATIO**

Rs in Lakhs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Particulars** | **1** | **2** | **3** | **4** | **5** |
|  | 70% | 75% | 80% | 90% | 100% |
| DSCR | 3.24 | 2.39 | 2.76 | 4.28 | 5.27 |
| Average DSCR | 3.58 |  |  |  |  |
| DSCR weighted average | 3.40 |  |  |  |  |

* **WORKING CAPITAL REQUIREMENTS**

Rs in Lakhs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Particulars** | **1** | **2** | **3** | **4** | **5** |
|  | 70% | 75% | 80% | 90% | 100% |
| Variable Cost | 49.42 | 52.95 | 56.49 | 63.54 | 70.58 |
| Fixed Cost | 4.28 | 4.42 | 4.09 | 2.98 | 2.66 |
| Working capital Gap | 5.98 | 6.43 | 6.87 | 7.75 | 8.62 |