

**PROJECT PROFILE**  
**ON**  
**ENROBED CHOCOLATES**

Month & Year  
Aug 2010

**PREPARED BY**  
**TANSTIA-FNF SERVICE CENTRE**  
**B-22, INDUSTRIAL ESTATE**  
**CHENNAI-600032**

Supported by

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STIFTUNG **FÜR DIE FREIHEIT**

## ENROBED CHOCOLATES

### **1. Introduction**

Enrobed Chocolates are a delicacy among the younger generations and is consumed as a pastime fun product. It is served in parties, birthday functions, airline flights, and also helps to pass time on long journeys. Being made from milk, sugar and cocoa powder, it is harmless for consumption even if it becomes habit forming. The addition of grated nuts and coconut make it more appealing and tasty.

### **2. Market**

The major market outlets are the “ A” and “B” class outlets. The product also finds placement in self service counters and departmental stores.

### **3. Packaging**

The processed product is packed in metallized film wrappers.

### **4. Production capacity**

- The plant will be in operation for two shifts a day with each shift of 8 hours duration.
- The plant operates to a production capacity of 100 kilograms per hour.
- The estimated production per day is 1500 kilograms.
- The total production per month will be 37.5 M.T while the annual production is estimated at 450 M.T
- The time period required for achieving full capacity utilization is one year.

#### **5. Sales revenue**

- The ex-factory selling price will be Rs. 240 per kilogram thereby yielding a sales revenue of Rs. 1080 lakhs on full capacity utilization. The MRP is Rs. 350 per kilogram

#### **6. Production process outline.**

The chocolate mass is first prepared by melting milk fat, cocoa butter, milk powder and cocoa mass in definite proportions. After tempering it is enrobed over a nougat mass and the entire mass is passed through a cooling tunnel wherein it hardens. The enrobed chocolate is packed in a metallized film in a pillow pack machine.

#### **7. Quality specifications**

<b>Sl</b>	<b>Description</b>	<b>Value</b>
1	Suphated ash	Maximum 2.0%
2	Ash	Maximum 1.0%
3	Acid insoluble ash	Maximum 0.2%
4	Reducing sugars as dextrose	Minimum 10%
5	Sucrose	Minimum 60%
6	Fat	Minimum 4%
7	Total protein	Minimum 3%
8	Peroxide value of fat used	Nil
9	Total plate count	Maximum 10,000 per gram
10	Coliforms	Absent
11	Streptococci	Absent
12	Staphylococci	Absent

#### **8. Pollution control measures**

Not necessary as there are no pollutants or effluents.

#### **9. Energy conservation measures**

Common measures will do.

**10. Land and construction cost for the proposed unit**

The proposed unit is to be set up in a leased area. The area required is 4000 square feet as described below.

Sl	Description	Sq. feet
1	Processing area	2000
2	Milk and cocoa powder storage room	300
3	Sugar storage room	100
4	Vanaspathi storage room	100
5	Other raw materials storage room	200
6	Finished goods storage room	200
7	Packaging material storage room	100
8	Laboratory	200
9	Office space	200
10	Machinery spares store room	100
11	Administration office	200
12	Toilet space	200
13	Miscellaneous space	100
<b>14</b>	<b>Total</b>	<b>4000</b>

Lease rent – Rs. 8.00 per square foot

Total rent per month – Rs. 32000

Lease advance – Rs. 2.00 lakhs

**11. Costing of machinery and equipment**

Sl	Description	Rs. lakhs
1	Chocolate melting kettle	2.505
2	Conch	3.326
3	Tempering machine	5.907
4	Enrober	6.402
5	Cooling tunnel	5.598
6	Pillow packing machine	8.196
7	Air conditioners 4 nos	2.400
8	Voltage stabilizer	1.000
<b>9</b>	<b>Total</b>	<b>35.334</b>
10	Laboratory equipment	2.600

11	Grand total machinery and equipment	37.934
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## 12. *Project cost*

Sl	Description	Rs. lakhs
1	Land	On lease
2	Civil works	On lease
3	Plant machinery	35.334
4	Laboratory equipment	2.600
5	Transport vehicle ( 1 LCV)	7.500
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.500
9	Cost of electrification	1.000
10	Erection and commissioning	0.830
11	Cost of machinery spares	0.600
12	Cost of office equipment	1.000
13	Deposits if any	1.000
14	Company formation expenses	0.100
15	Gestation period expenses	1.000
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	10.000
18	Contingencies	1.000
19	Working capital margin money	32.832
<b>20</b>	<b>Total</b>	<b>95.396</b>

## 13. *Working capital requirements per month*

### a. *Salaries and wages*

Sl	Description	No of persons	Total salary / month (Rs. lakhs)
1	Production Manager	1	0.400
2	Maintenance Engineer	1	0.350
3	Production supervisors / chemist	2	0.500
4	Skilled workers	2	0.200
5	Unskilled workers	8	0.400
6	Packing workers	8	0.320
7	Administrative staff	2	0.500
8	Sales staff	2	0.300
9	Driver	1	0.100

<b>7</b>	<b>Total</b>	<b>27</b>	<b>3.070</b>
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**b. Raw material requirement per month**

SI	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Milk powder	20625	160.00	33.000
2	Cocoa powder	1875	180.00	3.375
3	Sugar	7500	24.00	1.800
4	Cocoa butter	5625	180.00	10.125
5	Aerated shortening	1875	70.00	1.313
6	Emulsifier	375	100.00	0.375
7	<b>Total raw material</b>	<b>37875</b>		<b>49.988</b>

**c. Packaging material requirement per month**

SI	Description	Qty	Rate / unit (Rs)	Value (Rs. lakhs)
1	Primary packaging material – metallized polyester – poly film	2250 kgs	250	5.625
2	Cartons and straps	1405 nos	50	0.703
3	<b>Total</b>			<b>6.328</b>

**Total raw + packaging material = Rs. 56.316 lakhs**

**d. Utilities per month**

SI	Description	Rs. lakhs
1	Power 20000 kwh @ Rs. 5.50 per unit	1.100
2	Water	0.050
3	Boiler fuel	0.000
4	<b>Total utilities</b>	<b>1.150</b>

**e. Contingent expenses per month**

Sl	Description	Rs. lakhs
1	Rent for processing shed	0.320
2	Postage and stationery	0.020
3	Telephones, fax etc.	0.050
4	Consumable stores	0.020
5	Repairs and maintenance	4.600
6	Local transports, loading and unloading	0.300
7	Advertisement and publicity @ 10% of sales	9.000
8	Insurance	0.034
9	Sales expenses @ 1% of sales	0.900
10	Miscellaneous expenses @ 1% of sales	0.900
11	Trade incentives @ 2% of sales	1.800
12	Taxes @ 4%	3.600
<b>13</b>	<b>Total contingent expenses</b>	<b>21.544</b>

**f. Total working capital requirement per month**

Sl	Description	Rs. lakhs
1	Salaries and wages	3.070
2	Raw material and packaging material	56.316
3	Utilities	1.150
4	Contingent expenses	21.544
<b>5</b>	<b>Total</b>	<b>82.080</b>

**14. Means of finance**

Sl	Description	Rs. lakhs
1	Total Project Cost	95.396
2	Equity	31.481
3	Debt	63.915
4	Working capital margin money	32.832

### 15. Financial analysis

Sl	Description	Rs. lakhs
1	Total recurring cost per year	984.960
2	Depreciation on land and building	0.000
3	Depreciation on machinery and vehicle	4.600
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.020
6	Depreciation on office equipment	0.100
7	Interest on long term loan @ 13.5%	8.628
8	Interest on short term borrowings@ 13.5%	6.648
<b>9</b>	<b>Total cost of production</b>	<b>1004.956</b>

### 16. Turnover per year

Sl	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
<b>1</b>	<b>Enrobed chocolates</b>	<b>450,000</b>	<b>240</b>	<b>1080</b>

### 17. Viability analysis

Sl	Description	Value
1	Net profit before income tax (Rs. lakhs)	75.044
2	Net profit ratio	7.0%
3	Internal rate of return	27.08%
4	Break even percentage	49%
5	Debt service coverage ratio	2.014

#### List of machinery suppliers for Enrobed Chocolates

1. A.M.P Rose Private Limited, 38, Double Road, K.H.Circle, Bangalore 560027.  
Tel: 080 – 28525092, 28525093, 28525094, 28525223; Fax: 080 - 28525223
2. Indian Foods Private Limited, 171, K.K.Nagar, Madurai 625020, Tamil Nadu. ;  
Tel: 0452 - 2587776; Fax: 0452 - 2587511