PROJECT PROFILE

ON

## HARD-BOILED CANDIES

Month \& Year<br>Aug 2010

# PREPARED BY <br> TANSTIA-FNF SERVICE CENTRE <br> B-22, INDUSTRIAL ESTATE <br> CHENNAI-600032 

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## HARD-BOILED CANDIES

## 1. Introduction

Hard-boiled candies or sweets are prepared from sugar along with invert sugar, citric acid and flavours. Being available in different flavours like orange, lemon, mango etc., and easily affordable children find it a delicacy. It is consumed as a pastime fun product.

## 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. Some "C" class outlets also stock the product.

## 3. Packaging

The processed product is packed in twist and wrap cellophane wrapper.

## 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 500 kilograms per shift.
- The estimated production per day is 1000 kilograms.
- The total production per month will be 25.0 M.T while the annual production is estimated at 300 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. 80 per kilogram thereby yielding a sales revenue of Rs. 240 lakhs on full capacity utilization.


## 6. Production process outline.

The required quantity of sugar per batch is taken in the candy cooker and boiled with the required quantities of invert sugar and citric acid. When the desired consistency is achieved, it is poured on to the cooling tables and rolled to the desired sizes in the roller. The candy former forms the candies to the desired shapes and sizes when it begins to harden. The candies are further rolled on to the cooling conveyer wherein the product is brought to room temperature before being twist wrapped in the wrapping machine. They are then packed into weights of one kilogram in polypropylene pouches before being dispatched into the market.

## 7. Quality specifications

- Sulphated ash
- Ash
- Acid insoluble ash
- Sulphur dioxide
- Maximum 1.5\%
- Maximum 1.0\%
- Maximum 0.5\%
- Maximum 350 parts per million.


## 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 unit is proposed to be set up in a leased area. The area required is 3500 square feet as detailed below:

| SI | Description | Sq. feet |
| :---: | :--- | ---: |
| 1 | Processing area | 1500 |
| 2 | Packing room | 500 |
| 3 | Sugar storage room | 200 |
| 4 | Other raw materials storage room | 200 |
| 5 | Finished goods storage room | 200 |
| 6 | Packaging material storage room | 100 |
| 7 | Laboratory | 200 |
| 8 | Office space | 200 |
| 9 | Machinery spares room | 100 |
| 10 | Toilet space | 100 |
| 11 | Miscellaneous space | 200 |
| $\mathbf{1 2}$ | Total | $\mathbf{3 5 0 0}$ |

Lease rent - Rs. 6.00 per square foot
Total rent per month - Rs. 21000
Lease advance - Rs. 100000
11. Costing of machinery and equipment

| SI | Description | Rs. lakhs |
| :---: | :--- | ---: |
| 1 | Baby boiler and accessories | 1.850 |
| 2 | Candy cooker | 2.039 |
| 3 | Cooling tables (2) | 1.600 |
| 4 | Roto plant candy former | 3.600 |
| 5 | Batch roller | 2.086 |
| 6 | Cooling conveyer | 1.728 |
| 7 | Wrapping machines (2 nos) | 8.240 |
| $\mathbf{8}$ | Total | $\mathbf{2 1 . 1 4 3}$ |
| 9 | Laboratory equipment | 1.000 |
| $\mathbf{1 0}$ | Grand total machinery and equipment | $\mathbf{2 2 . 1 4 3}$ |

12. Project cost

| $\mathbf{S I}$ | Description | Rs. lakhs |
| ---: | :--- | ---: |
| 1 | Land | On lease |
| 2 | Civil works | On lease |
| 3 | Plant machinery | 21.143 |
| 4 | Laboratory equipment | 1.000 |
| 5 | Transport vehicle (Tata Ace) | 3.760 |
| 6 | Pollution control equipment | 0.000 |
| 7 | Energy conservation equipment | 0.000 |
| 8 | Cost of power connection | 0.500 |
| 9 | Cost of electrification | 0.500 |
| 10 | Erection and commissioning | 1.414 |
| 11 | Cost of machinery spares | 0.200 |
| 12 | Cost of office equipment | 1.000 |
| 13 | Deposits if any | 0.700 |
| 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 | 7.046 |
| 20 | Total | 49.463 |

13. Working capital requirements per month
a. Salaries and wages

| SI | Description | No of <br> persons | Total <br> salary / <br> month <br> (Rs. lakhs) |
| :--- | :--- | :---: | :---: |
| 1 | Production Manager | 1 | 0.400 |
| 2 | Production supervisor cum <br> chemist | 2 | 0.500 |
| 3 | Skilled workers | 2 | 0.200 |
| 4 | Unskilled workers | 4 | 0.200 |
| 5 | Packing workers | 4 | 0.160 |
| 6 | Administrative staff | 2 | 0.500 |
| 7 | Sales staff | 2 | 0.300 |
| 8 | Driver | 1 | 0.070 |
| $\mathbf{9}$ | Total | $\mathbf{1 8}$ | $\mathbf{2 . 3 3 0}$ |

b. Raw material requirement per month

| SI | Description | Qty <br> (kgs) | Rate /kg <br> (Rs) | Value <br> (Rs. lakhs) |
| :--- | :--- | :---: | :---: | :---: |
| 1 | Sugar | 20000 | 24.00 | 4.800 |
| 2 | Invert sugar syrup | 6000 | 24.00 | 1.440 |
| 3 | Citric acid | 250 | 140.00 | 0.350 |
| 4 | Flavours and colours | 50 | 500.00 | 0.250 |
| 5 | Total raw material | $\mathbf{2 6 3 0 0}$ |  | $\mathbf{6 . 8 4 0}$ |

c. Packaging material requirement per month

| SI | Description | Qty | Rate / unit <br> Rs) | Value <br> (Rs. lakhs) |
| :--- | :--- | :---: | :---: | :---: |
| 1 | Primary packaging <br> material - candy <br> cellophane wrapper film | 1000 kgs | 100.00 | 1.000 |
| 2 | Polypropylene pouches | 25000 nos | 1.00 | 0.250 |
| 3 | Cartons and straps | 1000 nos | 40.00 | 0.400 |
| 4 | Total |  |  | $\mathbf{1 . 6 5 0}$ |

Total raw + packaging material = Rs. 8.490 lakhs
d. Utilities per month

| SI | Description | Rs. lakhs |
| :---: | :--- | ---: |
| 1 | Power 6000 kwh @ Rs. 5.50 per unit | 0.330 |
| 2 | Water | 0.050 |
| 3 | Boiler fuel | 0.250 |
| 4 | Total utilities | $\mathbf{0 . 6 3 0}$ |

e. Contingent expenses per month

| SI | Description | Rs. lakhs |
| :---: | :--- | ---: |
| 1 | Rent for processing shed | 0.210 |
| 2 | Postage and stationery | 0.020 |
| 3 | Telephones, fax etc. | 0.050 |
| 4 | Consumable stores | 0.020 |
| 5 | Repairs and maintenance | 0.156 |
| 6 | Local transports, loading and unloading | 0.100 |
| 7 | Advertisement and publicity @ 20\% of sales | 4.000 |
| 8 | Insurance | 0.010 |
| 9 | Sales expenses @ 1\% of sales | 0.200 |
| 10 | Miscellaneous expenses @ 1\% of sales | 0.200 |
| 11 | Trade incentives @ 2\% of sales | 0.400 |
| 12 | Taxes @ 4\% | 0.800 |
| 13 | Total contingent expenses | $\mathbf{6 . 1 6 6}$ |

f. Total working capital requirement per month

| SI | Description | Rs. lakhs |
| :---: | :--- | ---: |
| 1 | Salaries and wages | 2.330 |
| 2 | Raw material and packaging material | 8.490 |
| 3 | Utilities | 0.630 |
| 4 | Contingent expenses | 6.166 |
| $\mathbf{5}$ | Total | $\mathbf{1 7 . 6 1 6}$ |

## 14. Means of finance

| SI | Description | Rs. lakhs |
| :---: | :--- | ---: |
| 1 | Total Project Cost | 49.463 |
| 2 | Equity | 16.322 |
| 3 | Debt | 33.141 |
| 4 | Working capital margin money | 7.046 |

## 15. Financial analysis

| SI | Description | Rs. lakhs |
| :---: | :--- | ---: |
| 1 | Total recurring cost per year | 211.392 |
| 2 | Depreciation on land and building | 0.000 |
| 3 | Depreciation on machinery | 2.593 |
| 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\% | 4.474 |
| 8 | Interest on short term borrowings@ 13.5\% | 1.427 |
| $\mathbf{9}$ | Total cost of production | $\mathbf{2 2 0 . 0 0 6}$ |

16. Turnover per year

| SI | Item | Qty | Rate/unit <br> (Rs) | Total <br> Rs. lakhs |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Hard Boiled <br> Candies | 300,000 kgs | 80 | 240.00 |

17. Viability analysis

| SI | Description | Value |
| :---: | :--- | ---: |
| 1 | Net profit before income tax (Rs. lakhs) | 19.994 |
| 2 | Net profit ratio | $8.3 \%$ |
| 3 | Internal rate of return | $24.9 \%$ |
| 4 | Break even percentage | $43 \%$ |
| 5 | Debt service coverage ratio | 2.069 |

List of machinery suppliers for Hard Boiled Candies

1. Mangal Engineering Works, Factory Area, Patiala 147001, Punjab. Tel: 0175 - 2364702; Fax: 0175-2360652
2. Emersion Engineering Enterprise, Near Gate Station, Surendarnagar, 363001, Gujarat.; Tel: 02752-221940
3. The Ravalgoan Sugar Farm Limited, Factory - P.O. Ravalgoan 423108, District Nashik, Maharashtra.
