



# MODEL PROJECT REPORT



## PROJECT REPORT ON ALKYD RESIN

**SWAVALAMBI BHARAT ABHIYAN**

## PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxx  
Pin: xxxxxxx State: xxxxxxxxx  
Mobile xxxxxxx
- 5 Product and By Product : **ALKYD RESIN**
- 6 Name of the project / business activity proposed : **ALKYD RESIN MANUFACTURING UNIT**
- 7 Cost of Project : Rs.36.65 Lakhs
- 8 Means of Finance  
Term Loan Rs.24 Lakhs  
Own Capital Rs.3.65 Lakhs  
Working capital Rs.9 Lakhs
- 9 Debt Service Coverage Ratio : 2.13
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 25%
- 13 Employment : 9 Persons
- 14 Power Requirement : 30.00 HP
- 15 Major Raw materials : Linseed oil, Penta Erythriol, Phthalic anhydride, Litharge, Xylene, Barrel
- 16 Estimated Annual Sales Turnover (Max Capacity) : 404.44 Lakhs
- 17 Detailed Cost of Project & Means of Finance

### COST OF PROJECT

(Rs. In Lakhs)

| Particulars          | Amount       |
|----------------------|--------------|
| Land                 | Own/Rented   |
| Plant & Machinery    | 24.65        |
| Furniture & Fixtures | 2.00         |
| Working Capital      | 10.00        |
| <b>Total</b>         | <b>36.65</b> |

### MEANS OF FINANCE

| Particulars              | Amount       |
|--------------------------|--------------|
| Own Contribution         | 3.65         |
| Working Capital(Finance) | 9.00         |
| Term Loan                | 24.00        |
| <b>Total</b>             | <b>36.65</b> |

## **ALKYD RESIN**

**Introduction:** Alkyd resins are any of a large group of thermoset resins that are essentially Polyesters made by heating polyhydric alcohol with polybasic acids or their anhydride and used chiefly in making protective coatings with good weathering properties. These resins are useful as film forming agents in paint, varnished and enamels & as thermosetting plastics that can be moulded into solid objects. Hence, alkyd resins are one of the important ingredients in the synthetic paint industry. The paint factories in India currently produce a variety of paint which can broadly be categorized as synthetic enamel. This type of paint is used for the exclusive use in internal / exterior walls and ceilings of architecture. This type consists of alkyd based products which are used as metallic & wood paints, varnishes & lacquers, antirust, etc.



**Market Potential:** Alkyd resin, which is used in the production of a wide variety of paints, is supplied to the Indian market both from domestic production and import. As Indian industries are producing paint of amount approximately Rs.15000 crores which needs Alkyd Resin of amount near

about Rs. 3000 crores. Due to construction of apartments, buildings, roads there is huge demand of paint in this sector. Increased demand of paint will need the basic raw material of paint i.e. alkyd resin simultaneously.

**Raw Material:** Major raw materials are as follows:

1. Linseed oil
2. Penta Erythriol
3. Pthalic anhydride
4. Litharge
5. Xylene
6. Barrel

**Machinery Requirement:** Major machinery & equipments are as follows:

| S No. | Description                    | Qty. | Amount(Rs.)    |
|-------|--------------------------------|------|----------------|
| 1     | Reactor                        | 1    | 750000         |
| 2     | Condenser(main)                | 1    | 200000         |
| 3     | Separator                      | 1    | 75000          |
| 4     | Blender                        | 1    | 75000          |
| 5     | Vent Condenser                 | 1    | 75000          |
| 6     | Addition tank                  | 1    | 75000          |
| 7     | Resin pump(Reactor to blender) | 1    | 25000          |
| 8     | Resin pump (Blender to filter) | 1    | 25000          |
| 9     | Resin filter(Sparkler)         | 1    | 75000          |
| 10    | Stand by Electric Genrator     | 1    | 225000         |
| 11    | Thermic fluid heating system   | 1    | 275000         |
| 12    | Oil Pump                       | 1    | 25000          |
| 13    | Weighing scale                 | 1    | 15000          |
| 14    | Finished product tank          | 1    | 50000          |
| 15    | Water Hydrant                  | 1    | 100000         |
| 16    | Cooling tower & pump           | 1    | 300000         |
| 17    | Other equipments & hand tools  | Ls   | 100000         |
|       | <b>Total Amount</b>            |      | <b>2465000</b> |

**Manufacturing Process:** Two processes are used for the production of alkyd resins, namely the solvent and the fusion process. The solvent process uses a small amount of solvent, 5- 10%, in the etherification reaction to act as a reflux medium. The advantages of this process are:

- Uniformity of Product
- Increased speed of reaction and lower material losses.
- Light Color

In the solvent process, the production of alkyds can be carried out either in a single stage or a two stage process. Under the single stage process, the drying oil (linseed oil), polyalcohol and phthalic anhydride are converted simultaneously. This method of alkyd preparation is not satisfactory because of the incompatibility of the phthalic anhydride with drying oil (linseed oil) and the difficulty of controlling the reaction to produce the desired end-products.

In the first stage of the two stage solvent process, monoglyceride is produced from drying oil and polyalcohol and in the second stage the monoglyceride is esterified with phthalic anhydride to convert it into alkyd resin. This process is more satisfactory and is the one recommended for the envisaged plant because it eliminates the problems of the first option.

In the two- stage solvent process, the first operation is the alcholoysis reaction which takes place under different duration of time (varying form 40 minutes to 4 hours) and temperature (from about 240 to 260oC). The completion of this stage is shown by the solubility of the product in about twice its weight of methanol. Monoglyceride formation is checked by solubility method with methanol in the ratio 1:3. The confirmation test is done by compatibility test in which monoglyceride is heated separately in small quantity with pthalic anhydride and heated up to 225 degree Celsius. The reaction product is diluted with MTO to infinite.

**Area:** The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500 to 2000Sqft.

**Power Requirement:** The power consumption required to run all the machinery could be approximated as 30 Hp

**Manpower Requirement:** There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 9 including 1 Supervisor, 1 Plant operator, 2 unskilled worker, 1 Helper and 1 Security guard. 3 Skilled worker including Accountant, Manager and Sales person.

**Bank Term Loan:** Rate of Interest is assumed to be at 11%

**Depreciation:** Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

## **Approvals & Registration Requirement:**

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require.
- NOC from State Pollution Control Board

## **Implementation Schedule:**

| S No. | Activity                                                     | Time required |
|-------|--------------------------------------------------------------|---------------|
| 1.    | Acquisition of premises                                      | 1-2 Months    |
| 2.    | Procurement & installation of Plant & Machinery              | 1-2 Months    |
| 3.    | Arrangement of Finance                                       | 1.5-2 Months  |
| 4.    | Requirement of required Manpower                             | 1 Month       |
| 5.    | Commercial Trial Runs                                        | 1 Month       |
|       | Total time Required (some activities shall run concurrently) | 5-6 Months    |

## **FINANCIALS**

| <b>PROJECTED CASH FLOW STATEMENT</b> |              |              |              |              |              |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|
|                                      |              |              |              |              |              |
| PARTICULARS                          | I            | II           | III          | IV           | V            |
|                                      |              |              |              |              |              |
|                                      |              |              |              |              |              |
| <b><u>SOURCES OF FUND</u></b>        |              |              |              |              |              |
|                                      |              |              |              |              |              |
| Own Contribution                     | 3.65         | -            |              |              |              |
| Reserve & Surplus                    | 4.37         | 7.49         | 8.80         | 16.74        | 21.37        |
| Depriciation & Exp. W/ off           | 3.90         | 3.32         | 2.83         | 2.42         | 2.06         |
| Increase In Cash Credit              | 9.00         |              |              |              |              |
| Increase In Term Loan                | 24.00        | -            | -            | -            | -            |
| Increase in Creditors                | 5.06         | 0.92         | 0.66         | 0.66         | 0.66         |
|                                      |              |              |              |              |              |
| <b>TOTAL :</b>                       | <b>49.98</b> | <b>11.73</b> | <b>12.30</b> | <b>19.82</b> | <b>24.09</b> |
|                                      |              |              |              |              |              |
|                                      |              |              |              |              |              |
| <b><u>APPLICATION OF FUND</u></b>    |              |              |              |              |              |
|                                      |              |              |              |              |              |
| Increase in Fixed Assets             | 26.65        | -            | -            | -            | -            |
| Increase in Stock                    | 7.10         | 1.26         | 1.01         | 1.02         | 1.04         |
| Increase in Debtors                  | 8.07         | 1.55         | 1.25         | 1.29         | 1.32         |
| Repayment of Term Loan               | 2.67         | 5.33         | 5.33         | 5.33         | 5.33         |
| Taxation                             | -            | 1.12         | 1.76         | 4.18         | 6.41         |
| Drawings                             | 2.00         | 2.40         | 2.80         | 6.00         | 9.00         |
| <b>TOTAL :</b>                       | <b>46.49</b> | <b>11.67</b> | <b>12.15</b> | <b>17.83</b> | <b>23.10</b> |
|                                      |              |              |              |              |              |
| Opening Cash & Bank Balance          | -            | 3.49         | 3.55         | 3.69         | 5.68         |
|                                      |              |              |              |              |              |
| Add : Surplus                        | 3.49         | 0.06         | 0.15         | 1.99         | 0.99         |
|                                      |              |              |              |              |              |
| Closing Cash & Bank Balance          | <b>3.49</b>  | <b>3.55</b>  | <b>3.69</b>  | <b>5.68</b>  | <b>6.67</b>  |

| <b>PROJECTED BALANCE SHEET</b> |              |              |              |              |              |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|
|                                |              |              |              |              |              |
| PARTICULARS                    | I            | II           | III          | IV           | V            |
|                                |              |              |              |              |              |
|                                |              |              |              |              |              |
| <b>SOURCES OF FUND</b>         |              |              |              |              |              |
| <b>Capital Account</b>         |              |              |              |              |              |
| Opening Balance                | -            | 6.02         | 9.99         | 14.22        | 20.78        |
| Add: Additions                 | 3.65         | -            | -            | -            | -            |
| Add: Net Profit                | 4.37         | 6.37         | 7.04         | 12.55        | 14.96        |
| Less: Drawings                 | 2.00         | 2.40         | 2.80         | 6.00         | 9.00         |
| <b>Closing Balance</b>         | <b>6.02</b>  | <b>9.99</b>  | <b>14.22</b> | <b>20.78</b> | <b>26.73</b> |
| CC Limit                       | 9.00         | 9.00         | 9.00         | 9.00         | 9.00         |
| Term Loan                      | 21.33        | 16.00        | 10.67        | 5.33         | -            |
| Sundry Creditors               | 5.06         | 5.98         | 6.64         | 7.31         | 7.97         |
|                                |              |              |              |              |              |
| <b>TOTAL :</b>                 | <b>41.41</b> | <b>40.96</b> | <b>40.53</b> | <b>42.42</b> | <b>43.71</b> |
|                                |              |              |              |              |              |
|                                |              |              |              |              |              |
|                                |              |              |              |              |              |
| <b>APPLICATION OF FUND</b>     |              |              |              |              |              |
|                                |              |              |              |              |              |
| <b>Fixed Assets ( Gross)</b>   | <b>26.65</b> | <b>26.65</b> | <b>26.65</b> | <b>26.65</b> | <b>26.65</b> |
| Gross Dep.                     | 3.90         | 7.22         | 10.05        | 12.47        | 14.53        |
| Net Fixed Assets               | 22.75        | 19.43        | 16.60        | 14.18        | 12.12        |
|                                |              |              |              |              |              |
| <b>Current Assets</b>          |              |              |              |              |              |
| Sundry Debtors                 | 8.07         | 9.62         | 10.87        | 12.16        | 13.48        |
| Stock in Hand                  | 7.10         | 8.37         | 9.37         | 10.39        | 11.43        |
| Cash and Bank                  | 3.49         | 3.55         | 3.69         | 5.68         | 6.67         |
|                                |              |              |              |              |              |
| <b>TOTAL :</b>                 | <b>41.41</b> | <b>40.96</b> | <b>40.53</b> | <b>42.42</b> | <b>43.71</b> |

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| <b>PROJECTED PROFITABILITY STATEMENT</b> |               |               |               |               |               |
|------------------------------------------|---------------|---------------|---------------|---------------|---------------|
| PARTICULARS                              | I             | II            | III           | IV            | V             |
| <b>A) SALES</b>                          |               |               |               |               |               |
| Gross Sale                               | 242.14        | 288.63        | 326.16        | 364.76        | 404.44        |
| <b>Total (A)</b>                         | <b>242.14</b> | <b>288.63</b> | <b>326.16</b> | <b>364.76</b> | <b>404.44</b> |
| <b>B) COST OF SALES</b>                  |               |               |               |               |               |
| Raw Material Consumed                    | 216.89        | 256.20        | 284.67        | 313.13        | 341.60        |
| Electricity Expenses                     | 1.83          | 2.05          | 2.28          | 2.51          | 2.74          |
| Repair & Maintenance                     | 2.42          | 2.89          | 6.52          | 7.30          | 12.13         |
| Labour & Wages                           | 6.43          | 6.75          | 7.08          | 7.44          | 7.81          |
| Depreciation                             | 3.90          | 3.32          | 2.83          | 2.42          | 2.06          |
| <b>Cost of Production</b>                | <b>231.46</b> | <b>271.21</b> | <b>303.39</b> | <b>332.80</b> | <b>366.35</b> |
| <b>Add: Opening Stock /WIP</b>           | <b>-</b>      | <b>3.49</b>   | <b>4.10</b>   | <b>4.63</b>   | <b>5.18</b>   |
| <b>Less: Closing Stock /WIP</b>          | <b>3.49</b>   | <b>4.10</b>   | <b>4.63</b>   | <b>5.18</b>   | <b>5.74</b>   |
| <b>Cost of Sales (B)</b>                 | <b>227.97</b> | <b>270.60</b> | <b>302.86</b> | <b>332.25</b> | <b>365.78</b> |
| <b>C) GROSS PROFIT (A-B)</b>             | <b>14.16</b>  | <b>18.03</b>  | <b>23.29</b>  | <b>32.51</b>  | <b>38.65</b>  |
|                                          | <b>5.85%</b>  | <b>6.25%</b>  | <b>7.14%</b>  | <b>8.91%</b>  | <b>9.56%</b>  |
| D) Bank Interest (Term Loan )            | 2.60          | 2.13          | 1.54          | 0.95          | 0.37          |
| ii) Interest On Working Capital          | 0.99          | 0.99          | 0.99          | 0.99          | 0.99          |
| E) Salary to Staff                       | 3.78          | 4.54          | 5.44          | 6.53          | 7.84          |
| F) Selling & Adm Expenses Exp.           | 2.42          | 2.89          | 6.52          | 7.30          | 8.09          |
| <b>TOTAL (D+E)</b>                       | <b>9.79</b>   | <b>10.54</b>  | <b>14.50</b>  | <b>15.77</b>  | <b>17.28</b>  |
| <b>H) NET PROFIT</b>                     | <b>4.37</b>   | <b>7.49</b>   | <b>8.80</b>   | <b>16.74</b>  | <b>21.37</b>  |
|                                          | <b>1.8%</b>   | <b>2.6%</b>   | <b>2.7%</b>   | <b>4.6%</b>   | <b>5.3%</b>   |
| I) Taxation                              | -             | 1.12          | 1.76          | 4.18          | 6.41          |
| <b>J) PROFIT (After Tax)</b>             | <b>4.37</b>   | <b>6.37</b>   | <b>7.04</b>   | <b>12.55</b>  | <b>14.96</b>  |

| <b>COMPUTATION OF MAKING OF ALKYD RESIN</b> |  |             |                  |
|---------------------------------------------|--|-------------|------------------|
| <b>Item to be Manufactured Alkyd Resin</b>  |  |             |                  |
| Manufacturing Capacity per day              |  | 1,800       | Kg               |
| No. of Working Hour                         |  | 8           |                  |
| No of Working Days per month                |  | 25          |                  |
| No. of Working Day per annum                |  | 300         |                  |
| Total Production per Annum                  |  | 5,40,000    | Kg               |
| Total Production per Annum                  |  | 5,400       | Barrel of 100 Kg |
| Year                                        |  | Capacity    | ALKYD RESIN      |
|                                             |  | Utilisation |                  |
| I                                           |  | 40%         | 2,160.00         |
| II                                          |  | 45%         | 2,430.00         |
| III                                         |  | 50%         | 2,700.00         |
| IV                                          |  | 55%         | 2,970.00         |
| V                                           |  | 60%         | 3,240.00         |
|                                             |  |             |                  |

| <b>COMPUTATION OF RAW MATERIAL</b> |  |                          |      |             |                            |
|------------------------------------|--|--------------------------|------|-------------|----------------------------|
| Item Name                          |  | Quantity of Raw Material | Unit | Unit Rate   | Total CostPer Annum (100%) |
| Linseed oil                        |  | 360.00                   | MT   | 1,00,000.00 | 3,60,00,000.00             |
| Penta Erythriol                    |  | 60.00                    | MT   | 1,20,000.00 | 72,00,000.00               |
| Pthalic anhydride                  |  | 150.00                   | MT   | 65,000.00   | 97,50,000.00               |
| Litharge                           |  | 0.15                     | MT   | 1,50,000.00 | 22,500.00                  |
| Xylene                             |  | 5.00                     | MT   | 88,000.00   | 4,40,000.00                |
| Barrel                             |  | 5,400.00                 | Pcs  | 150.00      | 8,10,000.00                |
|                                    |  |                          |      |             |                            |
| Total                              |  |                          |      |             | <b>5,42,22,500.00</b>      |
|                                    |  |                          |      |             |                            |
| Total Raw material in Rs lacs      |  |                          |      |             | 542.23                     |

| Raw Material Consumed | Capacity    |  | Amount (Rs.) |                     |  |
|-----------------------|-------------|--|--------------|---------------------|--|
|                       | Utilisation |  |              |                     |  |
|                       |             |  |              |                     |  |
| I                     | 40%         |  | 216.89       |                     |  |
| II                    | 45%         |  | 256.20       | 5% Increase in Cost |  |
| III                   | 50%         |  | 284.67       | 5% Increase in Cost |  |
| IV                    | 55%         |  | 313.13       | 5% Increase in Cost |  |
| V                     | 60%         |  | 341.60       | 5% Increase in Cost |  |
|                       |             |  |              |                     |  |

| COMPUTATION OF CLOSING STOCK & WORKING CAPITAL |             |             |             |              |              |
|------------------------------------------------|-------------|-------------|-------------|--------------|--------------|
|                                                |             |             |             |              |              |
| PARTICULARS                                    | I           | II          | III         | IV           | V            |
|                                                |             |             |             |              |              |
|                                                |             |             |             |              |              |
| <b>Finished Goods</b>                          |             |             |             |              |              |
| (5 Days requirement)                           | 3.49        | 4.10        | 4.63        | 5.18         | 5.74         |
| <b>Raw Material</b>                            |             |             |             |              |              |
| (5 Days requirement)                           | 3.61        | 4.27        | 4.74        | 5.22         | 5.69         |
|                                                |             |             |             |              |              |
| <b>Closing Stock</b>                           | <b>7.10</b> | <b>8.37</b> | <b>9.37</b> | <b>10.39</b> | <b>11.43</b> |

| COMPUTATION OF WORKING CAPITAL REQUIREMENT |             |             |             |
|--------------------------------------------|-------------|-------------|-------------|
|                                            |             |             |             |
| Particulars                                | Amount      | Margin(10%) | Net         |
|                                            |             |             | Amount      |
| Stock in Hand                              | 7.10        |             |             |
| Less:                                      |             |             |             |
| Sundry Creditors                           | 5.06        |             |             |
| <b>Paid Stock</b>                          | <b>2.04</b> | <b>0.20</b> | <b>1.84</b> |
|                                            |             |             |             |
| Sundry Debtors                             | 8.07        | 0.81        | 7.26        |
| <b>Working Capital Requirement</b>         |             |             | <b>9.10</b> |
|                                            |             |             |             |
| <b>Margin</b>                              |             |             | 1.01        |
|                                            |             |             |             |
| <b>MPBF</b>                                |             |             | <b>9.10</b> |
| <b>Working Capital Demand</b>              |             |             | <b>9.00</b> |

|                                                |  |           |           |           |
|------------------------------------------------|--|-----------|-----------|-----------|
| <b><u>BREAK UP OF LABOUR</u></b>               |  |           |           |           |
|                                                |  |           |           |           |
| Particulars                                    |  | Wages     | No of     | Total     |
|                                                |  | Per Month | Employees | Salary    |
| Supervisor                                     |  | 15,000.00 | 1         | 15,000.00 |
| Plant Operator                                 |  | 9,000.00  | 1         | 9,000.00  |
| Unskilled Worker                               |  | 8,000.00  | 2         | 16,000.00 |
| Helper                                         |  | 6,000.00  | 1         | 6,000.00  |
| Security Guard                                 |  | 5,000.00  | 1         | 5,000.00  |
|                                                |  |           |           |           |
|                                                |  |           |           | 51,000.00 |
| Add: 5% Fringe Benefit                         |  |           |           | 2,550.00  |
|                                                |  |           |           |           |
| Total Labour Cost Per Month                    |  |           |           | 53,550.00 |
| Total Labour Cost for the year ( In Rs. Lakhs) |  |           | 6         | 6.43      |

|                                           |  |           |           |           |
|-------------------------------------------|--|-----------|-----------|-----------|
| <b><u>BREAK UP OF SALARY</u></b>          |  |           |           |           |
|                                           |  |           |           |           |
| Particulars                               |  | Salary    | No of     | Total     |
|                                           |  | Per Month | Employees | Salary    |
| Manager                                   |  | 12,000.00 | 1         | 12,000.00 |
| Accountant cum store keeper               |  | 10,000.00 | 1         | 10,000.00 |
| Sales                                     |  | 8,000.00  | 1         | 8,000.00  |
|                                           |  |           |           |           |
| Total Salary Per Month                    |  |           |           | 30,000.00 |
|                                           |  |           |           |           |
| Add: 5% Fringe Benefit                    |  |           |           | 1,500.00  |
| Total Salary for the month                |  |           |           | 31,500.00 |
|                                           |  |           |           |           |
| Total Salary for the year ( In Rs. Lakhs) |  |           | 3         | 3.78      |

| <b>COMPUTATION OF DEPRECIATION</b> |        |                   |           |       |
|------------------------------------|--------|-------------------|-----------|-------|
|                                    |        |                   |           |       |
| Description                        | Land   | Plant & Machinery | Furniture | TOTAL |
|                                    |        |                   |           |       |
| Rate of Depreciation               |        | 15.00%            | 10.00%    |       |
| Opening Balance                    | Leased | -                 | -         | -     |
| Addition                           | -      | 24.65             | 2.00      | 26.65 |
|                                    | -      | 24.65             | 2.00      | 26.65 |
|                                    |        | -                 | -         |       |
| TOTAL                              |        | 24.65             | 2.00      | 26.65 |
| Less : Depreciation                | -      | 3.70              | 0.20      | 3.90  |
| WDV at end of Ist year             | -      | 20.95             | 1.80      | 22.75 |
| Additions During The Year          | -      | -                 | -         | -     |
|                                    | -      | 20.95             | 1.80      | 22.75 |
| Less : Depreciation                | -      | 3.14              | 0.18      | 3.32  |
| WDV at end of IIInd Year           | -      | 17.81             | 1.62      | 19.43 |
| Additions During The Year          | -      | -                 | -         | -     |
|                                    | -      | 17.81             | 1.62      | 19.43 |
| Less : Depreciation                | -      | 2.67              | 0.16      | 2.83  |
| WDV at end of IIIrd year           | -      | 15.14             | 1.46      | 16.60 |
| Additions During The Year          | -      | -                 | -         | -     |
|                                    | -      | 15.14             | 1.46      | 16.60 |
| Less : Depreciation                | -      | 2.27              | 0.15      | 2.42  |
| WDV at end of IV year              | -      | 12.87             | 1.31      | 14.18 |
| Additions During The Year          | -      | -                 | -         | -     |
|                                    | -      | 12.87             | 1.31      | 14.18 |
| Less : Depreciation                | -      | 1.93              | 0.13      | 2.06  |
| WDV at end of Vth year             | -      | 10.94             | 1.18      | 12.12 |

| REPAYMENT SCHEDULE OF TERM LOAN |                 |        |          |       |          | 11.0%     |            |
|---------------------------------|-----------------|--------|----------|-------|----------|-----------|------------|
| Year                            | Particulars     | Amount | Addition | Total | Interest | Repayment | CI Balance |
| I                               | Opening Balance |        |          |       |          |           |            |
|                                 | Ist Quarter     | -      | 24.00    | 24.00 | 0.66     | -         | 24.00      |
|                                 | IInd Quarter    | 24.00  | -        | 24.00 | 0.66     | -         | 24.00      |
|                                 | IIIRD Quarter   | 24.00  | -        | 24.00 | 0.66     | 1.33      | 22.67      |
|                                 | Ivth Quarter    | 22.67  | -        | 22.67 | 0.62     | 1.33      | 21.33      |
|                                 |                 |        |          |       | 2.60     | 2.67      |            |
| II                              | Opening Balance |        |          |       |          |           |            |
|                                 | Ist Quarter     | 21.33  | -        | 21.33 | 0.59     | 1.33      | 20.00      |
|                                 | IInd Quarter    | 20.00  | -        | 20.00 | 0.55     | 1.33      | 18.67      |
|                                 | IIIRD Quarter   | 18.67  | -        | 18.67 | 0.51     | 1.33      | 17.33      |
|                                 | Ivth Quarter    | 17.33  |          | 17.33 | 0.48     | 1.33      | 16.00      |
|                                 |                 |        |          |       | 2.13     | 5.33      |            |
| III                             | Opening Balance |        |          |       |          |           |            |
|                                 | Ist Quarter     | 16.00  | -        | 16.00 | 0.44     | 1.33      | 14.67      |
|                                 | IInd Quarter    | 14.67  | -        | 14.67 | 0.40     | 1.33      | 13.33      |
|                                 | IIIRD Quarter   | 13.33  | -        | 13.33 | 0.37     | 1.33      | 12.00      |
|                                 | Ivth Quarter    | 12.00  |          | 12.00 | 0.33     | 1.33      | 10.67      |
|                                 |                 |        |          |       | 1.54     | 5.33      |            |
| IV                              | Opening Balance |        |          |       |          |           |            |
|                                 | Ist Quarter     | 10.67  | -        | 10.67 | 0.29     | 1.33      | 9.33       |
|                                 | IInd Quarter    | 9.33   | -        | 9.33  | 0.26     | 1.33      | 8.00       |
|                                 | IIIRD Quarter   | 8.00   | -        | 8.00  | 0.22     | 1.33      | 6.67       |
|                                 | Ivth Quarter    | 6.67   |          | 6.67  | 0.18     | 1.33      | 5.33       |
|                                 |                 |        |          |       | 0.95     | 5.33      |            |
| V                               | Opening Balance |        |          |       |          |           |            |
|                                 | Ist Quarter     | 5.33   | -        | 5.33  | 0.15     | 1.33      | 4.00       |
|                                 | IInd Quarter    | 4.00   | -        | 4.00  | 0.11     | 1.33      | 2.67       |
|                                 | IIIRD Quarter   | 2.67   | -        | 2.67  | 0.07     | 1.33      | 1.33       |
|                                 | Ivth Quarter    | 1.33   |          | 1.33  | 0.04     | 1.33      | 0.00       |
|                                 |                 |        |          |       | 0.37     | 5.33      |            |

Door to Door Period                      60   Months  
Moratorium Period                         6   Months  
Repayment Period                          54   Months

|                                      |             |             |             |             |             |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|
|                                      |             |             |             |             |             |
| <b><u>CALCULATION OF D.S.C.R</u></b> |             |             |             |             |             |
|                                      |             |             |             |             |             |
| <b>PARTICULARS</b>                   | <b>I</b>    | <b>II</b>   | <b>III</b>  | <b>IV</b>   | <b>V</b>    |
|                                      |             |             |             |             |             |
|                                      |             |             |             |             |             |
| <b><u>CASH ACCRUALS</u></b>          | 8.27        | 9.69        | 9.87        | 14.97       | 17.02       |
|                                      |             |             |             |             |             |
| Interest on Term Loan                | 2.60        | 2.13        | 1.54        | 0.95        | 0.37        |
|                                      |             |             |             |             |             |
| Total                                | 10.87       | 11.82       | 11.41       | 15.92       | 17.39       |
|                                      |             |             |             |             |             |
| <b><u>REPAYMENT</u></b>              |             |             |             |             |             |
| Repayment of Term Loan               | 2.67        | 5.33        | 5.33        | 5.33        | 5.33        |
| Interest on Term Loan                | 2.60        | 2.13        | 1.54        | 0.95        | 0.37        |
|                                      |             |             |             |             |             |
| Total                                | 5.27        | 7.46        | 6.87        | 6.29        | 5.70        |
|                                      |             |             |             |             |             |
| <b>DEBT SERVICE COVERAGE RATIO</b>   | <b>2.06</b> | <b>1.58</b> | <b>1.66</b> | <b>2.53</b> | <b>3.05</b> |
|                                      |             |             |             |             |             |
| <b>AVERAGE D.S.C.R.</b>              |             |             | <b>2.13</b> |             |             |
|                                      |             |             |             |             |             |
|                                      |             |             |             |             |             |

|                                   |               |               |               |               |               |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
|                                   |               |               |               |               |               |
| <b><u>COMPUTATION OF SALE</u></b> |               |               |               |               |               |
| Particulars                       | <b>I</b>      | <b>II</b>     | <b>III</b>    | <b>IV</b>     | <b>V</b>      |
|                                   |               |               |               |               |               |
| Op Stock                          | -             | 36.00         | 40.50         | 45.00         | 49.50         |
|                                   |               |               |               |               |               |
| Production                        | 2,160.00      | 2,430.00      | 2,700.00      | 2,970.00      | 3,240.00      |
|                                   |               |               |               |               |               |
|                                   | 2,160.00      | 2,466.00      | 2,740.50      | 3,015.00      | 3,289.50      |
| Less : Closing Stock(10 Days)     | 36.00         | 40.50         | 45.00         | 49.50         | 54.00         |
|                                   |               |               |               |               |               |
| Net Sale                          | 2,124.00      | 2,425.50      | 2,695.50      | 2,965.50      | 3,235.50      |
|                                   |               |               |               |               |               |
| Sale Price per Barrel             | 11,400.00     | 11,900.00     | 12,100.00     | 12,300.00     | 12,500.00     |
|                                   |               |               |               |               |               |
| <b>Sale (in Lacs)</b>             | <b>242.14</b> | <b>288.63</b> | <b>326.16</b> | <b>364.76</b> | <b>404.44</b> |
|                                   |               |               |               |               |               |
|                                   |               |               |               |               |               |

|                                    |  |                 |             |                  |
|------------------------------------|--|-----------------|-------------|------------------|
| <b>COMPUTATION OF ELECTRICITY</b>  |  |                 |             |                  |
| <b>(A) POWER CONNECTION</b>        |  |                 |             |                  |
|                                    |  |                 |             |                  |
| Total Working Hour per day         |  | Hours           | 8           |                  |
| Electric Load Required             |  | HP              | 30          |                  |
| Load Factor                        |  |                 | 0.7460      |                  |
| Electricity Charges                |  | per unit        | 7.50        |                  |
| Total Working Days                 |  |                 | 300         |                  |
| <b>Electricity Charges</b>         |  |                 |             | 4,02,840.00      |
|                                    |  |                 |             |                  |
| Add : Minimim Charges (@ 10%)      |  |                 |             |                  |
|                                    |  |                 |             |                  |
|                                    |  |                 |             |                  |
| <b>(B) DG set</b>                  |  |                 |             |                  |
| No. of Working Days                |  |                 | 300         | days             |
| No of Working Hours                |  |                 | 0.3         | Hour per day     |
| Total no of Hour                   |  |                 | 90          |                  |
| Diesel Consumption per Hour        |  |                 | 8           |                  |
| Total Consumption of Diesel        |  |                 | 720         |                  |
| Cost of Diesel                     |  |                 | 65.00       | Rs. /Ltr         |
| Total cost of Diesel               |  |                 | 0.47        |                  |
| Add : Lube Cost @15%               |  |                 | 0.07        |                  |
| Total                              |  |                 | <b>0.54</b> |                  |
|                                    |  |                 |             |                  |
| Total cost of Power & Fuel at 100% |  |                 |             | 4.57             |
|                                    |  |                 |             |                  |
| <b>Year</b>                        |  | <b>Capacity</b> |             | <b>Amount</b>    |
|                                    |  |                 |             | <b>(in Lacs)</b> |
|                                    |  |                 |             |                  |
| I                                  |  | 40%             |             | 1.83             |
| II                                 |  | 45%             |             | 2.05             |
| III                                |  | 50%             |             | 2.28             |
| IV                                 |  | 55%             |             | 2.51             |
| V                                  |  | 60%             |             | 2.74             |
|                                    |  |                 |             |                  |
|                                    |  |                 |             |                  |