

# PROJECT REPORT

Of

# GLASS BULB SHELL

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Glass Bulb Shell Manufacturing unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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**PROJECT AT A GLANCE**

- 1 Name of the Entrepreneur : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **GLASS BULB SHELL**
- 6 Name of the project / business activity proposed : **OTHER GLASS PRODUCTS (GLASS BULB SHELL)**
- 7 Cost of Project : Rs.14.42 Lakhs
- 8 Means of Finance
- Term Loan Rs.9 Lakhs
- Own Capital Rs.1.44 Lakhs
- Working Capital Rs.3.98 Lakhs
- 9 Debt Service Coverage Ratio : 2.80
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 43%
- 13 Employment : 12 Persons
- 14 Power Requirement : 10.00 KW
- 15 Major Raw materials : Soda Lime Silica Glass, Lead  
Glass (Soft Glass)
- 16 Estimated Annual Sales Turnover (Max Capacity) : 76.47 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	8.50
Furniture & Fixtures	1.50
Working Capital	4.42
<b>Total</b>	<b>14.42</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	1.44
Working Capital(Finance)	3.98
Term Loan	9.00
<b>Total</b>	<b>14.42</b>

# **GLASS BULB SHELL MANUFACTURING UNIT**

## **Introduction:**

The common incandescent light bulb consists of several parts, some of which you can see, and a few you can't. Thin outer glass shell of the bulb is called the bulb shell/globe. The glass ensures maximum light efficiency and provides strong support for the other parts of the bulb. It contains the filament which gives off light, a stem, which holds the filament, and a metal base that screws into a socket, such as in a lamp or ceiling fixture. The parts function together as one of the most successful inventions of all time.



## **Uses & Market Potential:**

The glass ensures maximum light efficiency and provides strong support for the other parts of the bulb. It contains the filament which gives off light, a stem, which holds the filament, and a metal base that screws into a socket, such as in a lamp or ceiling fixture. The global *glassware* industry is positively impacted by a recent change in buying behaviour of consumers who are increasingly favouring premium homeware products. Moreover, the availability of trendy glassware products is favouring the overall industry growth. A wide variety of glass shells for consumers, industrial and automobile lamps are produced. Increasing disposable income of consumers from developing nations such as China and India is resulting in strong demand for luxury and premium glassware products. The soda lime glass segment expected to grow at the fastest rate of 12.4% CAGR during the upcoming years.

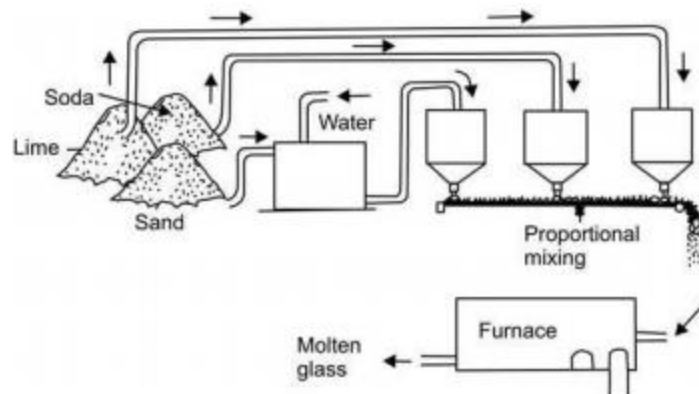
## **Product:**

GLASS BULB SHELL

## **Raw Material:**

1. Soda Lime Silica Glass (Soda Ash 33%, Silica Sand 66% and chemicals 1%) produced at around 1450 degree Celsius
2. Lead Glass (Soft Glass) in which around 24% Lead (Pb) is mixed as a raw material. Most of the products are manufactured using Soda Lime Glass

## **Manufacturing Process:**



**Fig. Glass Manufacturing Process**

**Fig. 1 – Process Flowchart**

## **Area:**

The industrial setup requires space for Inventory, workshop or manufacturing area. 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 small scale factory setup is 2000-3000 Sq. ft. approximate.

### **Cost of Machines:**

<b>S No.</b>	<b>Machine</b>	<b>Unit</b>	<b>Price (INR)</b>
1.	Tank Furnace	1	5,25,000/-
2.	Press and blow Machine	1	3,25,000/-
	<b>Total</b>		<b>8,50,000/-</b>

**Power Requirement-** - The estimated Power requirement is taken at 10 KWH

**Manpower Requirement-** Following manpower is required:

- Skilled/unskilled worker-6
- Helpers-4
- Sales Personnel-2
- Accountant- 1

# **FINANCIALS**

**PROJECTED BALANCE SHEET**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
<b><u>Capital Account</u></b>					
Opening Balance	-	2.16	3.19	4.78	6.66
Add: Additions	1.44	-	-	-	-
Add: Net Profit	2.12	3.53	5.29	6.38	7.69
Less: Drawings	1.40	2.50	3.70	4.50	5.70
<b>Closing Balance</b>	<b>2.16</b>	<b>3.19</b>	<b>4.78</b>	<b>6.66</b>	<b>8.64</b>
CC Limit	3.98	3.98	3.98	3.98	3.98
Term Loan	8.00	6.00	4.00	2.00	-
Sundry Creditors	1.13	1.29	1.45	1.62	1.79
<b>TOTAL :</b>	<b>15.28</b>	<b>14.46</b>	<b>14.20</b>	<b>14.25</b>	<b>14.42</b>
<b><u>APPLICATION OF FUND</u></b>					
<b>Fixed Assets ( Gross)</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>
Gross Dep.	1.43	2.64	3.69	4.58	5.34
Net Fixed Assets	8.58	7.36	6.31	5.42	4.66
<b>Current Assets</b>					
Sundry Debtors	2.16	2.61	2.99	3.40	3.82
Stock in Hand	3.40	3.91	4.45	5.02	5.63
Cash and Bank	1.15	0.58	0.45	0.41	0.31
<b>TOTAL :</b>	<b>15.28</b>	<b>14.46</b>	<b>14.20</b>	<b>14.25</b>	<b>14.42</b>

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**PROJECTED PROFITABILITY STATEMENT**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>A) SALES</u></b>					
Gross Sale	43.11	52.25	59.83	67.90	76.47
<b>Total (A)</b>	<b>43.11</b>	<b>52.25</b>	<b>59.83</b>	<b>67.90</b>	<b>76.47</b>
<b><u>B) COST OF SALES</u></b>					
Raw Material Consumed	22.69	25.74	28.96	32.34	35.89
Electricity Expenses	1.23	1.34	1.45	1.57	1.68
Repair & Maintenance	1.08	1.31	1.50	1.70	1.91
Labour & Wages	10.84	12.79	14.70	17.35	19.43
Depreciation	1.43	1.22	1.04	0.89	0.76
<b>Cost of Production</b>	<b>37.26</b>	<b>42.39</b>	<b>47.66</b>	<b>53.85</b>	<b>59.68</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>2.27</b>	<b>2.62</b>	<b>3.00</b>	<b>3.41</b>
<b>Less: Closing Stock /WIP</b>	<b>2.27</b>	<b>2.62</b>	<b>3.00</b>	<b>3.41</b>	<b>3.84</b>
<b>Cost of Sales (B)</b>	<b>34.99</b>	<b>42.04</b>	<b>47.28</b>	<b>53.44</b>	<b>59.25</b>
<b>C) GROSS PROFIT (A-B)</b>	<b>8.12</b>	<b>10.21</b>	<b>12.55</b>	<b>14.46</b>	<b>17.22</b>
	<b>18.83%</b>	<b>19.54%</b>	<b>20.98%</b>	<b>21.29%</b>	<b>22.52%</b>
D) Bank Interest i) (Term Loan )	0.98	0.80	0.58	0.36	0.14
ii) Interest On Working Capital	0.44	0.44	0.44	0.44	0.44
E) Salary to Staff	2.77	3.47	4.16	4.91	5.64
F) Selling & Adm Expenses Exp.	1.81	1.99	2.09	2.38	2.45
<b>TOTAL (D+E+F)</b>	<b>6.00</b>	<b>6.69</b>	<b>7.27</b>	<b>8.08</b>	<b>8.66</b>
<b>H) NET PROFIT</b>	<b>2.12</b>	<b>3.53</b>	<b>5.29</b>	<b>6.38</b>	<b>8.56</b>
	<b>4.9%</b>	<b>6.7%</b>	<b>8.8%</b>	<b>9.4%</b>	<b>11.2%</b>
I) Taxation	-	-	-	-	0.87
<b>J) PROFIT (After Tax)</b>	<b>2.12</b>	<b>3.53</b>	<b>5.29</b>	<b>6.38</b>	<b>7.69</b>

**PROJECTED CASH FLOW STATEMENT**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
Own Contribution	1.44	-			
Reserve & Surplus	2.12	3.53	5.29	6.38	8.56
Depreciation & Exp. W/off	1.43	1.22	1.04	0.89	0.76
Increase In Cash Credit	3.98				
Increase In Term Loan	9.00	-	-	-	-
Increase in Creditors	1.13	0.15	0.16	0.17	0.18
<b>TOTAL :</b>	<b>19.10</b>	<b>4.90</b>	<b>6.49</b>	<b>7.44</b>	<b>9.50</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	10.00	-	-	-	-
Increase in Stock	3.40	0.51	0.54	0.57	0.61
Increase in Debtors	2.16	0.46	0.38	0.40	0.43
Repayment of Term Loan	1.00	2.00	2.00	2.00	2.00
Taxation	-	-	-	-	0.87
Drawings	1.40	2.50	3.70	4.50	5.70
<b>TOTAL :</b>	<b>17.96</b>	<b>5.46</b>	<b>6.62</b>	<b>7.48</b>	<b>9.60</b>
Opening Cash & Bank Balance	-	1.15	0.58	0.45	0.41
Add : Surplus	1.15	- 0.57	- 0.13	- 0.04	- 0.11
Closing Cash & Bank Balance	<b>1.15</b>	<b>0.58</b>	<b>0.45</b>	<b>0.41</b>	<b>0.31</b>



**COMPUTATION OF CLOSING STOCK & WORKING CAPITAL**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>Finished Goods</u></b>					
(15 Days requirement)	2.27	2.62	3.00	3.41	3.84
<b><u>Raw Material</u></b>					
(15 Days requirement)	1.13	1.29	1.45	1.62	1.79
<b>Closing Stock</b>	<b>3.40</b>	<b>3.91</b>	<b>4.45</b>	<b>5.02</b>	<b>5.63</b>

**COMPUTATION OF WORKING CAPITAL REQUIREMENT**

<b>Particulars</b>	<b>Amount</b>	<b>Margin(10%)</b>	<b>Net Amount</b>
Stock in Hand	3.40		
Less:			
Sundry Creditors	1.13		
<b>Paid Stock</b>	<b>2.27</b>	<b>0.23</b>	<b>2.04</b>
Sundry Debtors	2.16	0.22	1.94
<b>Working Capital Requirement</b>			<b>3.98</b>
<b>Margin</b>			0.44
<b>MPBF</b>			<b>3.98</b>
<b>Working Capital Demand</b>			<b>3.98</b>

**REPAYMENT SCHEDULE OF TERM LOAN**

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
<b>I</b>	Opening Balance						
	Ist Quarter	-	9.00	9.00	0.25	-	9.00
	Iind Quarter	9.00	-	9.00	0.25	-	9.00
	IIIrd Quarter	9.00	-	9.00	0.25	0.50	8.50
	Ivth Quarter	8.50	-	8.50	0.23	0.50	8.00
					0.98	1.00	
<b>II</b>	Opening Balance						
	Ist Quarter	8.00	-	8.00	0.22	0.50	7.50
	Iind Quarter	7.50	-	7.50	0.21	0.50	7.00
	IIIrd Quarter	7.00	-	7.00	0.19	0.50	6.50
	Ivth Quarter	6.50		6.50	0.18	0.50	6.00
					0.80	2.00	
<b>III</b>	Opening Balance						
	Ist Quarter	6.00	-	6.00	0.17	0.50	5.50
	Iind Quarter	5.50	-	5.50	0.15	0.50	5.00
	IIIrd Quarter	5.00	-	5.00	0.14	0.50	4.50
	Ivth Quarter	4.50		4.50	0.12	0.50	4.00
					0.58	2.00	
<b>IV</b>	Opening Balance						
	Ist Quarter	4.00	-	4.00	0.11	0.50	3.50
	Iind Quarter	3.50	-	3.50	0.10	0.50	3.00
	IIIrd Quarter	3.00	-	3.00	0.08	0.50	2.50
	Ivth Quarter	2.50		2.50	0.07	0.50	2.00
					0.36	2.00	
<b>V</b>	Opening Balance						
	Ist Quarter	2.00	-	2.00	0.06	0.50	1.50
	Iind Quarter	1.50	-	1.50	0.04	0.50	1.00
	IIIrd Quarter	1.00	-	1.00	0.03	0.50	0.50
	Ivth Quarter	0.50		0.50	0.01	0.50	-
					0.14	2.00	

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

**CALCULATION OF D.S.C.R**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>CASH ACCRUALS</u></b>	3.55	4.74	6.33	7.27	8.45
Interest on Term Loan	0.98	0.80	0.58	0.36	0.14
Total	4.52	5.54	6.91	7.63	8.59
<b><u>REPAYMENT</u></b>					
Repayment of Term Loan	1.00	2.00	2.00	2.00	2.00
Interest on Term Loan	0.98	0.80	0.58	0.36	0.14
Total	1.98	2.80	2.58	2.36	2.14
<b>DEBT SERVICE COVERAGE R</b>	<b>2.29</b>	<b>1.98</b>	<b>2.68</b>	<b>3.24</b>	<b>4.02</b>
<b>AVERAGE D.S.C.R.</b>			<b>2.80</b>		

## **Assumptions:**

- 1.** Production Capacity of a Glass Bulb Shell Manufacturing unit is taken at 550 Pcs per day. First year, Capacity has been taken @ 55%.
- 2.** Working shift of 10 hours per day has been considered.
- 3.** Raw Material stock and Finished goods closing stock has been taken for 15 days.
- 4.** Credit period to Sundry Debtors has been given for 15 days.
- 5.** Credit period by the Sundry Creditors has been provided for 15 days.
- 6.** Depreciation and Income tax has been taken as per the Income tax Act,1961.
- 7.** Interest on working Capital Loan and Term loan has been taken at 11%.
- 8.** Salary and wages rates are taken as per the Current Market Scenario.
- 9.** Power Consumption has been taken at 10 KWH.
- 10.** Selling Prices & Raw material costing has been increased by 5% & 5% respectively in the subsequent years.

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