

**UP MSME 1-Connect**

# PROJECT REPORT

**PROJECT: LAMINATED TUBE**

# **PROJECT REPORT OF LAMINATED TUBE PURPOSE OF THE DOCUMENT**

This particular pre-feasibility is regarding Laminated Tube.

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.]

## PROJECT AT GLANCE

1	Name of Proprietor/Director	XXXXXXXXXX	
2	Firm Name	XXXXXXXXXX	
3	Registered Address	XXXXXXXXXX	
4	Nature of Activity	XXXXXXXXXX	
5	Category of Applicant	XXXXXXXXXX	
6	Location of Unit	XXXXXXXXXX	
7	Cost of Project	24.14	Rs. In Lakhs
8	Means of Finance		
i)	Own Contribution	2.41	Rs. In Lakhs
ii)	Term Loan	18.23	Rs. In Lakhs
iii)	Working Capital	3.50	Rs. In Lakhs
9	Debt Service Coverage Ratio	2.50	
10	Break Even Point	43%	
11	Power Requirement	15	KW
12	Employment	8	Persons
13	Major Raw Materials		
14	Details of Cost of Project & Means of Finance		

COST OF PROJECT	
(in Lacs)	
PARTICULARS	Amount
Land & Building	Owned/Rented
Plant & Machinery	16.00
Furniture & Fixture	2.50
Miscellaneous Assets	1.75
Working capital Required	3.89
<b>Total</b>	<b>24.14</b>

MEANS OF FINANCE	
(in Lacs)	
PARTICULARS	Amount
Own Contribution @ 10%	2.41
Term Loan @ 90%	18.23
Working Capital (Bank Finance)	3.50
<b>Total</b>	<b>24.14</b>

# LAMINATED TUBES

## MANUFACTURING UNIT

### 1. INTRODUCTION



A Laminated tube is a collapsible package that can be used for viscous liquids such as toothpaste, artist's paint, adhesive, caulk, & ointments. A tube is a cylindrical, hollow piece with a round or oval profile, made of plastic, or with other material. Laminated tubes are made from webs that comprise at least five different layers including the barrier layer. The two longitudinal edges of the laminate are welded together to form the tube body, which is then joined to the tube shoulder with its closure to give a reliable and impermeable seal. Depending on the product and contents, laminate tubes can have a barrier layer of aluminum, plastic, or ceramic and – in the case of transparent laminates – a barrier of polyester. The so-called Polyfoil tube is a specific type of laminate tube in which a plastic layer is extruded on top of the laminate. Laminated tube maintains their attractiveness throughout the life of their contents. Laminate tubes combine the beneficial properties of the different materials: excellent barrier effect to protect the contents and high-end print quality using practically all

printing techniques to produce that persuasive brand presence at the point of sale. The tube's new 'invisible' weld seams together with the appropriate printing technology allow 360° printing of the tube bodies – all the way around. Most laminate tubes are supplied for the toothpaste market but they are playing an increasingly more important role for cosmetics and in other fields of application.

## **2. PRODUCT DESCRIPTION**

### **2.1. PRODUCT USES**

Laminated tubes are used for packaging across the globe in varied sectors such as cosmetics, pharmaceuticals, food, and oral hygiene.

### **2.2. RAW MATERIAL REQUIREMENT**

- **Laminate:** Jumbo laminate rolls or webs can be procured for the production of laminated tubes. The vendor can also produce laminate in-house using various machines.



- **Plastic:** Plastic granules, such as HDPA are used for header or cap forming.



- **Other:** Laminated Tube Caps, Printing Ink, etc. Vendors can also manufacture tube caps at the same plant using various machines. Polymer granules, HDPE granules can be used for laminated tube caps making.



### 2.3. **MANUFACTURING PROCESS**

This process can be broken down into the following steps-

- **Raw material procurement**
- **Manufacturing Process**
- **Testing**

#### **Raw Material Procurement**

The raw materials are checked strictly as per established quality standards and requirements. Individual supplier assessment and supplier rating are done depending upon the rejection levels at the incoming quality control stage. Sorting of raw material will be done as per material type or specifications. The material will be stored in; dust-free, moisture-free, neat, and clean environment.

## **Production Process**

- **Printing:** The jumbo reels of laminates are unwound here to be printed. Artworks provided by customers are processed using sophisticated technology to enable accuracy with the printing of colors and other details on the laminate. Can use the laminate printing machine, Flexo, and Letter Press technology for printing. When the printing process is completed, different colors are merged to give the desired design. In printing using a flexo printing machine, the starting material comes in the form of a roll, which passes through a series of rotary flexible relief plates. A specialized roller feeds each flexible plate with ink, with a single flexible plate required for each individually printed color. After printing all Jumbo reels are kept for curing & after curing all jumbo reels are to be slit in particular sizes as per requirement.
- **Slitting:** Printed laminate can be slitted into various sizes based on the size of the tube, to match customer specifications. The vendor makes use of high-speed rotary slitters, which minimize damages to the edges and ensure precise printing is visible.
- **Tubing:** The final stage in the complete manufacturing process is the tubing stage, where the laminate is sealed to form sleeves, the shoulder is fixed and an appropriate cap is applied to the tube-based as required by the customer. In this process, printed laminate will be fed to the machine. Where it will be welded and cut as per desired tube specification. After that, shoulder fixing will be done. An automatic tube heading machine is used here. Compression Molding and the Injection Molding processes for fixing shoulders on tubes can also be used. A variety of machines are utilized while manufacturing tubes depending on product specifications, volume of production, and for developing special features, which may be required to suit customer needs.
- **Testing:** Quality Control- Colour check, Tube layers monitor, Tube thickness measurement, Tube diameter measurement, Tube length measurement, Decoration peeling test, Tube sealing, etc.



Laminate roll



Unwinding and Printing



Slitting



Tube forming



Header fixing and Capping



### 3. **PROJECT COMPONENTS**

#### 3.1. **Land /Civil Work**

The land required for this manufacturing unit will be approx. around 2500 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs. 20,000 per month.

Land and building requirement may vary depending on the size of project

#### 3.2. **Plant & Machinery**

Basic machinery requirement are as follows:

- **Centro Impression Flexo Printing Machine** This machine is used for high-quality laminate tube printing. This machine is used in multi-color flexography in which a single large-diameter common impression cylinder supports the substrate as it contacts a series of adjacent plate cylinders, which lay down successive colors. These machines are capable of offering exciting effects that cannot be possible with other printing methods. Customized printing on tubes is done by this machine.





- **Slitting Machine** This machine is used for printed laminate roll slitting. This machine will slit the printed roll with high accuracy.



- **Tube Header Machine**  
This machine is used in making tube heads and joining them with tube sleeves. It is a special type injection moulding machine equipped with a screw system. It is a shuttle type i.e. two moulds run simultaneously, saving time and enhancing production.



- **Automatic Top Sealer & Capper Machine**

This machine is used for the capping process. Caps will be automatically fixed with the tube.



#### **4. LICENSE AND APPROVALS**

- GST registration.
- MSME Udyam registration.
- NOC from the Fire Safety Department
- NOC from the Pollution Department
- Choice of a Brand Name of the product and secure the name with Trademark if required.

## **PROJECTED BALANCE SHEET**

<b><u>PROJECTED BALANCE SHEET</u></b>					
(in Lacs)					
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
<b><u>Liabilities</u></b>					
<b>Capital</b>					
Opening balance		5.14	7.63	9.90	12.32
Add: - Own Capital	2.41				
Add: - Retained Profit	5.22	6.99	8.78	10.16	11.56
Less: - Drawings	2.50	4.50	6.50	7.75	8.00
<b>Closing Balance</b>	<b>5.14</b>	<b>7.63</b>	<b>9.90</b>	<b>12.32</b>	<b>15.88</b>
Term Loan	16.20	12.15	8.10	4.05	-
Working Capital Limit	3.50	3.50	3.50	3.50	3.50
Sundry Creditors	0.90	0.99	1.09	1.19	1.30
Provisions & Other Liability	0.40	0.48	0.58	0.69	0.83
<b>TOTAL:</b>	<b>26.13</b>	<b>24.75</b>	<b>23.17</b>	<b>21.75</b>	<b>21.51</b>
<b><u>Assets</u></b>					
<b>Fixed Assets (Gross)</b>					
Gross Dep.	2.91	5.40	7.53	9.34	10.90
<b>Net Fixed Assets</b>	<b>17.34</b>	<b>14.85</b>	<b>12.72</b>	<b>10.91</b>	<b>9.35</b>
<b>Current Assets</b>					
Sundry Debtors	2.76	3.21	3.59	4.01	4.46
Stock in Hand	2.31	2.56	2.82	3.11	3.43
Cash and Bank	1.73	1.93	1.53	1.07	1.49
Loans & Advances	2.00	2.20	2.50	2.65	2.78
<b>TOTAL:</b>	<b>26.13</b>	<b>24.75</b>	<b>23.17</b>	<b>21.75</b>	<b>21.51</b>

## **PROJECTED PROFITABILITY STATEMENT**

<b><u>PROJECTED PROFITABILITY STATEMENT</u></b>					(in Lacs)
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Capacity Utilisation %	<b>70%</b>	<b>75%</b>	<b>80%</b>	<b>85%</b>	<b>90%</b>
<b><u>SALES</u></b>					
<b>Gross Sale</b>					
Laminated Tubes	55.22	64.12	71.82	80.14	89.10
<b>Total</b>	<b>55.22</b>	<b>64.12</b>	<b>71.82</b>	<b>80.14</b>	<b>89.10</b>
<b><u>COST OF SALES</u></b>					
Raw Material Consumed	26.88	29.66	32.59	35.67	38.90
Electricity Expenses	2.02	2.38	2.53	2.69	2.85
Depreciation	2.91	2.49	2.13	1.82	1.55
Wages & labour	6.96	8.35	10.02	12.03	14.43
Repair & maintenance	0.83	1.03	1.22	1.44	1.69
Consumables	1.66	1.92	2.15	2.40	2.67
Packaging	1.10	1.28	1.44	1.60	1.78
<b>Cost of Production</b>	<b>42.36</b>	<b>47.11</b>	<b>52.09</b>	<b>57.65</b>	<b>63.88</b>
<b>Add: Opening Stock</b>	<b>-</b>	<b>1.41</b>	<b>1.57</b>	<b>1.74</b>	<b>1.92</b>
<b>Less: Closing Stock</b>	<b>1.41</b>	<b>1.57</b>	<b>1.74</b>	<b>1.92</b>	<b>2.13</b>
Cost of Sales	40.95	46.95	51.92	57.47	63.68
<b>GROSS PROFIT</b>	<b>14.27</b>	<b>17.16</b>	<b>19.90</b>	<b>22.67</b>	<b>25.43</b>
<b>Gross Profit Ratio</b>	<b>25.84%</b>	<b>26.77%</b>	<b>27.71%</b>	<b>28.29%</b>	<b>28.54%</b>
Salary to Staff	2.88	3.31	3.81	4.38	5.04
Interest on Term Loan	1.79	1.58	1.13	0.69	0.24
Interest on working Capital	0.39	0.39	0.39	0.39	0.39
Rent	2.40	2.64	2.90	3.19	3.51
Selling & Administrative Exp.	1.38	1.60	1.80	2.00	2.23
<b>TOTAL</b>	<b>8.84</b>	<b>9.52</b>	<b>10.03</b>	<b>10.65</b>	<b>11.40</b>
NET PROFIT	5.43	7.65	9.88	12.02	14.02
Taxation	0.21	0.65	1.10	1.86	2.46
PROFIT (After Tax)	5.22	6.99	8.78	10.16	11.56
<b>Net Profit Ratio</b>	<b>9.46%</b>	<b>10.90%</b>	<b>12.22%</b>	<b>12.68%</b>	<b>12.98%</b>

## **PROJECTED CASH FLOW STATEMENT**

<b><u>PROJECTED CASH FLOW STATEMENT</u></b>					(in Lacs)
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
<b><u>SOURCES OF FUND</u></b>					
Own Margin	2.41				
Net Profit	5.43	7.65	9.88	12.02	14.02
Depreciation & Exp. W/off	2.91	2.49	2.13	1.82	1.55
Increase in Cash Credit	3.50	-	-	-	-
Increase in Term Loan	18.23	-	-	-	-
Increase in Creditors	0.90	0.09	0.10	0.10	0.11
Increase in Provisions & Other liabilities	0.40	0.08	0.10	0.12	0.14
-	-				
<b>TOTAL:</b>	<b>33.78</b>	<b>10.31</b>	<b>12.20</b>	<b>14.05</b>	<b>15.82</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	20.25				
Increase in Stock	2.31	0.25	0.26	0.29	0.32
Increase in Debtors	2.76	0.45	0.39	0.42	0.45
Repayment of Term Loan	2.03	4.05	4.05	4.05	4.05
Loans & Advances	2.00	0.20	0.30	0.15	0.13
Drawings	2.50	4.50	6.50	7.75	8.00
Taxation	0.21	0.65	1.10	1.86	2.46
<b>TOTAL:</b>	<b>32.06</b>	<b>10.10</b>	<b>12.60</b>	<b>14.51</b>	<b>15.40</b>
Opening Cash & Bank Balance	-	1.73	1.93	1.53	1.07
Add: Surplus	1.73	0.21	-0.40	-0.46	0.42
Closing Cash & Bank Balance	<b>1.73</b>	<b>1.93</b>	<b>1.53</b>	<b>1.07</b>	<b>1.49</b>

## **D.S.C.R.**

<b><u>CALCULATION OF D.S.C.R.</u></b>					
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
CASH ACCRUALS	8.13	9.48	10.90	11.98	13.12
Interest on Term Loan	1.79	1.58	1.13	0.69	0.24
<b>Total</b>	9.93	11.06	12.03	12.67	13.36
<b>REPAYMENT</b>					
Instalment of Term Loan	2.03	4.05	4.05	4.05	4.05
Interest on Term Loan	1.79	1.58	1.13	0.69	0.24
Total	3.82	5.63	5.18	4.74	4.29
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.60</b>	<b>1.96</b>	<b>2.32</b>	<b>2.67</b>	<b>3.11</b>
<b>AVERAGE D.S.C.R.</b>	<b>2.50</b>				

## REPAYMENT SCHEDULE OF TERM LOAN

REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	18.23	18.23	-	-	18.23
	2nd month	18.23	-	18.23	0.17	-	18.23
	3rd month	18.23	-	18.23	0.17	-	18.23
	4th month	18.23	-	18.23	0.17		18.23
	5th month	18.23	-	18.23	0.17		18.23
	6th month	18.23	-	18.23	0.17		18.23
	7th month	18.23	-	18.23	0.17	0.34	17.89
	8th month	17.89	-	17.89	0.16	0.34	17.55
	9th month	17.55	-	17.55	0.16	0.34	17.21
	10th month	17.21	-	17.21	0.16	0.34	16.88
	11th month	16.88	-	16.88	0.15	0.34	16.54
	12th month	16.54	-	16.54	0.15	0.34	16.20
					1.79	2.03	
2nd	Opening Balance						
	1st month	16.20	-	16.20	0.15	0.34	15.86
	2nd month	15.86	-	15.86	0.15	0.34	15.53
	3rd month	15.53	-	15.53	0.14	0.34	15.19
	4th month	15.19	-	15.19	0.14	0.34	14.85
	5th month	14.85	-	14.85	0.14	0.34	14.51
	6th month	14.51	-	14.51	0.13	0.34	14.18
	7th month	14.18	-	14.18	0.13	0.34	13.84
	8th month	13.84	-	13.84	0.13	0.34	13.50
	9th month	13.50	-	13.50	0.12	0.34	13.16
	10th month	13.16	-	13.16	0.12	0.34	12.83
	11th month	12.83	-	12.83	0.12	0.34	12.49
	12th month	12.49	-	12.49	0.11	0.34	12.15
					1.58	4.05	
3rd	Opening Balance						
	1st month	12.15	-	12.15	0.11	0.34	11.81
	2nd month	11.81	-	11.81	0.11	0.34	11.48
	3rd month	11.48	-	11.48	0.11	0.34	11.14
	4th month	11.14	-	11.14	0.10	0.34	10.80
	5th month	10.80	-	10.80	0.10	0.34	10.46
	6th month	10.46	-	10.46	0.10	0.34	10.13
	7th month	10.13	-	10.13	0.09	0.34	9.79

	8th month	9.79	-	9.79	0.09	0.34	9.45
	9th month	9.45	-	9.45	0.09	0.34	9.11
	10th month	9.11	-	9.11	0.08	0.34	8.78
	11th month	8.78	-	8.78	0.08	0.34	8.44
	12th month	8.44	-	8.44	0.08	0.34	8.10
				<b>1.13</b>	<b>4.05</b>		
<b>4th</b>	Opening Balance						
	1st month	8.10	-	8.10	0.07	0.34	7.76
	2nd month	7.76	-	7.76	0.07	0.34	7.43
	3rd month	7.43	-	7.43	0.07	0.34	7.09
	4th month	7.09	-	7.09	0.06	0.34	6.75
	5th month	6.75	-	6.75	0.06	0.34	6.41
	6th month	6.41	-	6.41	0.06	0.34	6.08
	7th month	6.08	-	6.08	0.06	0.34	5.74
	8th month	5.74	-	5.74	0.05	0.34	5.40
	9th month	5.40	-	5.40	0.05	0.34	5.06
	10th month	5.06	-	5.06	0.05	0.34	4.73
	11th month	4.73	-	4.73	0.04	0.34	4.39
	12th month	4.39	-	4.39	0.04	0.34	4.05
				<b>0.69</b>	<b>4.05</b>		
<b>5th</b>	Opening Balance						
	1st month	4.05	-	4.05	0.04	0.34	3.71
	2nd month	3.71	-	3.71	0.03	0.34	3.38
	3rd month	3.38	-	3.38	0.03	0.34	3.04
	4th month	3.04	-	3.04	0.03	0.34	2.70
	5th month	2.70	-	2.70	0.02	0.34	2.36
	6th month	2.36	-	2.36	0.02	0.34	2.03
	7th month	2.03	-	2.03	0.02	0.34	1.69
	8th month	1.69	-	1.69	0.02	0.34	1.35
	9th month	1.35	-	1.35	0.01	0.34	1.01
	10th month	1.01	-	1.01	0.01	0.34	0.67
	11th month	0.67	-	0.67	0.01	0.34	0.34
	12th month	0.34	-	0.34	0.00	0.34	-
				<b>0.24</b>	<b>4.05</b>		
	DOOR TO DOOR MORATORIUM PERIOD	60	MONTHS				
		6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				



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