

# PROJECT REPORT

Of

## PVC WIRE & CABLE COATING

### PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **PVC Wire & Cable Coating**.

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 : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx  
Pin: xxxxxxxx State: xxxxxxxxxx  
Mobile : xxxxxxxx
- 5 Product and By Product : **PVC WIRE & CABLE COATING**
- 6 Name of the project / business activity proposed : **PVC WIRE & CABLE COATING UNIT**
- 7 Cost of Project : Rs.40 Lakhs
- 8 Means of Finance  
Term Loan Rs.27 Lakhs  
Own Capital Rs.4 Lakhs  
Working capital Rs.9 Lakhs
- 9 Debt Service Coverage Ratio : 2.34
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 24%
- 13 Employment : 11 Persons
- 14 Power Requirement : 30.00 HP
- 15 Major Raw materials : Copper wire for Coating, PVC Resin powder, Chemicals
- 16 Estimated Annual Sales Turnover (Max Capacity) : 333.87 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	28.60
Furniture & Fixtures	1.40
Working Capital	10.00
<b>Total</b>	<b>40.00</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	4.00
Working Capital(Finance)	9.00
Term Loan	27.00
<b>Total</b>	<b>40.00</b>

## **PVC WIRE & CABLE COATING**

**Introduction:** PVC Cables are used for power distribution in all types of electrical wiring, control cables, Telephone cables and signaling in Railways. With the development of industrial sector and with increase in power generation the demand of the cable is going to be more.



**Uses & Market Potential:** PVC wire and cables are used in all sectors including housing, electric appliances, vehicles, flexible and cord cables for appliances, Machine Tools and Equipment Wiring Heavy Duty Domestic Wires for House Wiring, Power supply and distribution for houses and other construction needs. The PVC wire and cable industry is an integral part of plastic processing industry which has witnessed an impressive rate of around 15% during last five years. The main reason being the growth of endues industry namely, building and construction due to aggressive activities in this sector. The wires and cable industry outlook therefore also shows good potential. The PVC wire and cable industry has already established its place and credentials as well as competitive advantage in the construction industry. The industry therefore is expected to register healthy growth.

**Raw material:** Major raw material requirements are as follows:

- Copper wire for Coating
- PVC Resin Powder
- Other chemicals & consumables such as Calcium, Wax, Titanium, etc.
- Packing material

**Machinery Requirements:** Major machineries & equipments are as follows:

<b>Description</b>	<b>Quantity</b>	<b>Rate</b>	<b>Value</b>
PVC Extruder & wire coating machine	1	1600000	1600000
Wire straightening equipment	1	100000	100000
Cable Printing machine	1	60000	60000
Measuring & Coiling machine	1	500000	500000
Extrusion Dies, nozzles, etc.	1	70000	70000
4 Bar Rotary machine for creasing & sizing	1	230000	230000
Acentric Slotter	1	250000	250000
Testing equipment & hand tools	Ls		50000
<b>Total Amount</b>			<b>2860000</b>

**Manufacturing Process:** E.C. Grade Aluminum wire of the required size is fed into the Extruder where in PVC is coated on the wire to the specified thickness. The extruded wire after passing through the cooling tank is coiled on the takeoff system. The wire is coiled into the length of 100 metres and tested as per IS specification.

**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 11 including 1 Supervisor, 2 Plant operator, 2 unskilled worker, 2 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 BALANCE SHEET</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>SOURCES OF FUND</b>					
<b>Capital Account</b>					
Opening Balance	-	5.29	9.66	14.08	19.85
Add: Additions	4.00	-	-	-	-
Add: Net Profit	4.79	8.37	11.42	14.77	18.96
Less: Drawings	3.50	4.00	7.00	9.00	12.00
<b>Closing Balance</b>	<b>5.29</b>	<b>9.66</b>	<b>14.08</b>	<b>19.85</b>	<b>26.81</b>
CC Limit	9.00	9.00	9.00	9.00	9.00
Term Loan	24.00	18.00	12.00	6.00	-
Sundry Creditors	5.70	6.73	7.48	8.23	8.98
<b>TOTAL :</b>	<b>43.99</b>	<b>43.40</b>	<b>42.57</b>	<b>43.08</b>	<b>44.79</b>
<b>APPLICATION OF FUND</b>					
<b>Fixed Assets ( Gross)</b>	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>
Gross Dep.	4.43	8.20	11.42	14.15	16.48
Net Fixed Assets	25.57	21.80	18.58	15.85	13.52
<b>Current Assets</b>					
Sundry Debtors	4.66	5.65	6.35	7.06	7.79
Stock in Hand	11.55	13.62	15.22	16.83	18.46
Cash and Bank	2.22	2.33	2.42	3.34	5.02
<b>TOTAL :</b>	<b>43.99</b>	<b>43.40</b>	<b>42.57</b>	<b>43.08</b>	<b>44.79</b>

<b>PROJECTED PROFITABILITY STATEMENT</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>A) SALES</b>					
Gross Sale	199.52	242.10	272.09	302.68	333.87
<b>Total (A)</b>	<b>199.52</b>	<b>242.10</b>	<b>272.09</b>	<b>302.68</b>	<b>333.87</b>
<b>B) COST OF SALES</b>					
Raw Material Consumed	171.00	201.99	224.44	246.88	269.33
Electricity Expenses	1.83	2.05	2.28	2.51	2.74
Repair & Maintenance	2.00	2.42	2.72	3.03	3.34
Labour & Wages	11.09	12.09	13.29	14.62	16.09
Depreciation	4.43	3.77	3.21	2.74	2.33
<b>Cost of Production</b>	<b>190.34</b>	<b>222.33</b>	<b>245.95</b>	<b>269.78</b>	<b>293.82</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>5.85</b>	<b>6.89</b>	<b>7.74</b>	<b>8.60</b>
<b>Less: Closing Stock /WIP</b>	<b>5.85</b>	<b>6.89</b>	<b>7.74</b>	<b>8.60</b>	<b>9.49</b>
Cost of Sales (B)	184.49	221.29	245.10	268.91	292.94
<b>C) GROSS PROFIT (A-B)</b>	<b>15.03</b>	<b>20.81</b>	<b>26.99</b>	<b>33.77</b>	<b>40.93</b>
	<b>7.53%</b>	<b>8.60%</b>	<b>9.92%</b>	<b>11.16%</b>	<b>12.26%</b>
D) Bank Interest (Term Loan )	2.93	2.39	1.73	1.07	0.41
ii) Interest On Working Capital	0.99	0.99	0.99	0.99	0.99
E) Salary to Staff	4.79	5.27	6.32	7.58	9.10
F) Selling & Adm Expenses Exp.	1.00	1.69	2.72	3.03	3.34
<b>TOTAL (D+E)</b>	<b>9.70</b>	<b>10.34</b>	<b>11.76</b>	<b>12.67</b>	<b>13.84</b>
H) NET PROFIT	5.32	10.46	15.23	21.09	27.09
	<b>2.7%</b>	<b>4.3%</b>	<b>5.6%</b>	<b>7.0%</b>	<b>8.1%</b>
I) Taxation	0.53	2.09	3.81	6.33	8.13
<b>J) PROFIT (After Tax)</b>	<b>4.79</b>	<b>8.37</b>	<b>11.42</b>	<b>14.77</b>	<b>18.96</b>



<b>PROJECTED CASH FLOW STATEMENT</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>SOURCES OF FUND</b>					
Own Contribution	4.00	-			
Reserve & Surplus	5.32	10.46	15.23	21.09	27.09
Depriciation & Exp. W/off	4.43	3.77	3.21	2.74	2.33
Increase In Cash Credit	9.00				
Increase In Term Loan	27.00	-	-	-	-
Increase in Creditors	5.70	1.03	0.75	0.75	0.75
<b>TOTAL :</b>	<b>55.45</b>	<b>15.27</b>	<b>19.19</b>	<b>24.58</b>	<b>30.17</b>
<b>APPLICATION OF FUND</b>					
Increase in Fixed Assets	30.00	-	-	-	-
Increase in Stock	11.55	2.07	1.60	1.62	1.63
Increase in Debtors	4.66	0.99	0.70	0.71	0.73
Repayment of Term Loan	3.00	6.00	6.00	6.00	6.00
Taxation	0.53	2.09	3.81	6.33	8.13
Drawings	3.50	4.00	7.00	9.00	12.00
<b>TOTAL :</b>	<b>53.24</b>	<b>15.16</b>	<b>19.10</b>	<b>23.66</b>	<b>28.49</b>
Opening Cash & Bank Balance	-	2.22	2.33	2.42	3.34
Add : Surplus	2.22	0.11	0.08	0.92	1.68
Closing Cash & Bank Balance	<b>2.22</b>	<b>2.33</b>	<b>2.42</b>	<b>3.34</b>	<b>5.02</b>

<b>COMPUTATION OF MAKING OF PVC COATED WIRE &amp; CABLE</b>			
<b>Item to be Manufactured PVC Coated wire &amp; Cable</b>			
Manufacturing Capacity per day		1,000	Kg
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		3,00,000	Kg
Total Production per Annum		3,00,000	Kg
Year		Capacity Utilisation	PVC WIRE & CABLE COATING
I		40%	1,20,000.00
II		45%	1,35,000.00
III		50%	1,50,000.00
IV		55%	1,65,000.00
V		60%	1,80,000.00

**COMPUTATION OF RAW MATERIAL**

Item Name	Quantity of Raw Material	Unit	Unit Rate of	Total Cost Per Annum (100%)
Copper wire for coating 1 sq mm	110.00	MT	3,80,000.00	4,18,00,000.00
PVC Resin Powder	5.00	MT	70,000.00	3,50,000.00
Other chemicals & consumables	Ls			4,00,000.00
Packing material	Ls			2,00,000.00
<b>Total</b>				<b>4,27,50,000.00</b>
<b>Total Raw material in Rs lacs</b>				<b>427.50</b>

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)	
I	40%	171.00	
II	45%	201.99	5% Increase in Cost
III	50%	224.44	5% Increase in Cost
IV	55%	246.88	5% Increase in Cost
V	60%	269.33	5% Increase in Cost

<b>COMPUTATION OF SALE</b>					
Particulars	I	II	III	IV	V
Op Stock	-	4,000.00	4,500.00	5,000.00	5,500.00
Production	1,20,000.00	1,35,000.00	1,50,000.00	1,65,000.00	1,80,000.00
	1,20,000.00	1,39,000.00	1,54,500.00	1,70,000.00	1,85,500.00
Less : Closing Stock(10 Days)	4,000.00	4,500.00	5,000.00	5,500.00	6,000.00
Net Sale	1,16,000.00	1,34,500.00	1,49,500.00	1,64,500.00	1,79,500.00
Sale Price per Kg	172.00	180.00	182.00	184.00	186.00
<b>Sale (in Lacs)</b>	<b>199.52</b>	<b>242.10</b>	<b>272.09</b>	<b>302.68</b>	<b>333.87</b>

<b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>Finished Goods</b>					
(10 Days requirement)	5.85	6.89	7.74	8.60	9.49
<b>Raw Material</b>					
(10 Days requirement)	5.70	6.73	7.48	8.23	8.98
<b>Closing Stock</b>	<b>11.55</b>	<b>13.62</b>	<b>15.22</b>	<b>16.83</b>	<b>18.46</b>

<b>COMPUTATION OF WORKING CAPITAL REQUIREMENT</b>			
<b>Particulars</b>	<b>Amount</b>	<b>Margin(10%)</b>	<b>Net Amount</b>
Stock in Hand	11.55		
Less:			
Sundry Creditors	5.70		
<b>Paid Stock</b>	<b>5.85</b>	<b>0.58</b>	<b>5.26</b>
Sundry Debtors	4.66	0.47	4.19
<b>Working Capital Requirement</b>			<b>9.45</b>
<b>Margin</b>			1.05
<b>MPBF</b>			<b>9.45</b>
<b>Working Capital Demand</b>			<b>9.00</b>

<b>BREAK UP OF LABOUR</b>				
Particulars	Wages Per Month	No of Employees	Total Salary	
Supervisor	18,000.00	1	18,000.00	
Plant Operator	14,000.00	2	28,000.00	
Unskilled Worker	10,000.00	2	20,000.00	
Helper	8,000.00	2	16,000.00	
Security Guard	6,000.00	1	6,000.00	
				88,000.00
Add: 5% Fringe Benefit				4,400.00
Total Labour Cost Per Month				92,400.00
Total Labour Cost for the year ( In Rs. Lakhs)		8		11.09

<b>BREAK UP OF SALARY</b>				
Particulars	Salary Per Month	No of Employees	Total Salary	
Manager	12,000.00	1	12,000.00	
Accountant cum store keeper	14,000.00	1	14,000.00	
Sales	12,000.00	1	12,000.00	
Total Salary Per Month				38,000.00
Add: 5% Fringe Benefit				1,900.00
Total Salary for the month				39,900.00
Total Salary for the year ( In Rs. Lakhs)		3		4.79

<b>COMPUTATION OF DEPRECIATION</b>				
Description	Land	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		15.00%	10.00%	
<b>Opening Balance</b>	Leased	-	-	-
Addition	-	28.60	1.40	30.00
	-	28.60	1.40	30.00
		-	-	
TOTAL		28.60	1.40	30.00
Less : Depreciation	-	4.29	0.14	4.43
WDV at end of Ist year	-	24.31	1.26	25.57
Additions During The Year	-	-	-	-
	-	24.31	1.26	25.57
Less : Depreciation	-	3.65	0.13	3.77
WDV at end of IIInd Year	-	20.66	1.13	21.80
Additions During The Year	-	-	-	-
	-	20.66	1.13	21.80
Less : Depreciation	-	3.10	0.11	3.21
WDV at end of IIIrd year	-	17.56	1.02	18.58
Additions During The Year	-	-	-	-
	-	17.56	1.02	18.58
Less : Depreciation	-	2.63	0.10	2.74
WDV at end of IV year	-	14.93	0.92	15.85
Additions During The Year	-	-	-	-
	-	14.93	0.92	15.85
Less : Depreciation	-	2.24	0.09	2.33
WDV at end of Vth year	-	12.69	0.83	13.52

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	27.00	27.00	0.74	-	27.00
	IInd Quarter	27.00	-	27.00	0.74	-	27.00
	IIIRD Quarter	27.00	-	27.00	0.74	1.50	25.50
	Ivth Quarter	25.50	-	25.50	0.70	1.50	24.00
					2.93	3.00	
II	Opening Balance						
	Ist Quarter	24.00	-	24.00	0.66	1.50	22.50
	IInd Quarter	22.50	-	22.50	0.62	1.50	21.00
	IIIRD Quarter	21.00	-	21.00	0.58	1.50	19.50
	Ivth Quarter	19.50		19.50	0.54	1.50	18.00
					2.39	6.00	
III	Opening Balance						
	Ist Quarter	18.00	-	18.00	0.50	1.50	16.50
	IInd Quarter	16.50	-	16.50	0.45	1.50	15.00
	IIIRD Quarter	15.00	-	15.00	0.41	1.50	13.50
	Ivth Quarter	13.50		13.50	0.37	1.50	12.00
					1.73	6.00	
IV	Opening Balance						
	Ist Quarter	12.00	-	12.00	0.33	1.50	10.50
	IInd Quarter	10.50	-	10.50	0.29	1.50	9.00
	IIIRD Quarter	9.00	-	9.00	0.25	1.50	7.50
	Ivth Quarter	7.50		7.50	0.21	1.50	6.00
					1.07	6.00	
V	Opening Balance						
	Ist Quarter	6.00	-	6.00	0.17	1.50	4.50
	IInd Quarter	4.50	-	4.50	0.12	1.50	3.00
	IIIRD Quarter	3.00	-	3.00	0.08	1.50	1.50
	Ivth Quarter	1.50		1.50	0.04	1.50	-
					0.41	6.00	

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>CASH ACCRUALS</b>	9.22	12.14	14.63	17.50	21.29
Interest on Term Loan	2.93	2.39	1.73	1.07	0.41
Total	12.15	14.54	16.37	18.57	21.71
<b>REPAYMENT</b>					
Repayment of Term Loan	3.00	6.00	6.00	6.00	6.00
Interest on Term Loan	2.93	2.39	1.73	1.07	0.41
Total	5.93	8.39	7.73	7.07	6.41
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.05</b>	<b>1.73</b>	<b>2.12</b>	<b>2.63</b>	<b>3.39</b>
<b>AVERAGE D.S.C.R.</b>			<b>2.34</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

## **DISCLAIMER**

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