

PVC WIRE AND CABLE COATING

1. 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.

2. PRODUCTS AND ITS APPLICATION

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

3. DESIRED QUALIFICATION FOR PROMOTER

The Promoter should have preferably a basic degree in plastic engineering/ processing or a degree/ diploma in engineering / or a degree in chemistry. Experience of at least two to three years in plastic industry is desirable.

4. INDUSTRY OUTLOOK AND TRENDS

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 performance trends of this industry show a very encouraging scenario in terms of new capacity creation and utilization. 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.

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY

This product has got a very good scope in the present market. With the rural development programme embark upon by the Government of India and various States spell out vast scope of cables. Small scale sector in India occupy a significant role in the cable industry. More than 50% L.T. cable is manufactured in small scale sector.

6. RAW MATERIAL REQUIREMENTS

- Copper wire for coating
- PVC Resin Powder
- Other chemicals such as
- Calcium
- Wax
- Titanium
- Packaging material

7. 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 take off system. The wire is coiled into the length of 100 metres and tested as per IS specification.

- Process flow chart
Mixer ► Extruder ► Coating (Wire)
Cutting « Winding « Cooling
Packing ► Dispatch

8. MANPOWER REQUIREMENT

Sr. No.	Particulars	Nos	Salary(Rs.)
1	Production manager	1	12000
2	Production Engineer	1	9000
3	Sales Officer	1	8000
4	Accountant	1	10000
5	Store Keeper	1	7000
6	Skilled worker	2	15000
7	Semi-Skilled Worker	4	22000
8	Unskilled Worker	4	16000
9	Watchman	1	6000
	Total	16	105000

9. IMPLEMENTATION SCHEDULE

The estimated time required for implementing the project would be approximately 10-12 months

Sr. No.	Particulars	Time
1	preparation of Project report	Two months
2	Sanction of loan	Three months
3	Selection of Site	One month
4	Completion of registration and other formalities	One month
5	Machinery procurement, erection and Installation	Four months
6	Trial production and commissioning	One month

10. COST OF PROJECT

Sr. No.	Particulars	Rs. In lakhs
1	Land and Building	25.00
2	Plant and Machinery	25.30
3	Miscellaneous Assets	4.50
4	P & P Expenses	2.50
5	Contingencies @ 10% on land and building and plant and machinery	5.03
6	Working capital margin	31.85
		94.18

11. MEANS OF FINANCE

Sr. No.	Particulars	Rs. (lakhs)
1	Promoter's contribution	28.254
2	Bank Finance	65.926
		94.18

12. WORKING CAPITAL CALCULATION

Sr. No.	Particulars	Rs. lakhs	Stock Period days	Promoter Margin	Margin Amt.	Bank Finance
1	Salaries and wages	1.05	30	1	1.05	-
2	Raw material and packaging material	31.25	30	0.5	15.625	15.625
3	Utilities	0.45	30	0.5	0.225	0.225
4	Debtors	37.37	30	0.4	14.948	22.422
	Total	70.12			31.848	

13. LIST OF MACHINERY REQUIRED

Sr. No.	Particulars	Rs. lakhs
1	PVC Extruder and Wire Coating Machine	10.00
2	Wire Straightening equipment	0.90
3	Cable Printing Machine	0.60
4	Measuring & Coiling Machine	5.00
5	Extrusion Dies, KNOZZLES etc.	0.50
6	4 Bar Rotary machine for creasing & sizing	2.30
7	Acentric Slotter	2.50
8	Testing Equipments	3.50
	Total	25.30

Major machinery manufacturers are

- M/s. Remika Plastic Machinery Manufacturers,
- M/s. Konark Plastic Manufacturers,
- M/s. Shyam Plastic, etc.

14. PROFITABILITY CALCULATIONS

(Rs.)

Sr. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
(A)	Sales Realization per annum	31395000	35880000	40365000	40365000	40365000
(B)	Cost of Production					
1	Raw material per annum	26250000	30000000	33750000	33750000	33750000
2	Utilities	271320	310080	348840	348840	348840
3	Salaries	1260000	1360800	1461600	1562400	1663200
4	Repairs and maintenance	350000	370000	390000	410000	430000
5	Selling expenses (3% on sales value)	941850	1076400	1210950	1210950	1210950
6	Administrative Expenses (other expenses)	375000	395000	415000	435000	455000
	Total	29448170	33512280	37576390	37717190	37857990
(C)	Profit before interest & depreciation	1946830	2367720	2788610	2647810	2507010
	depreciation	754500	754500	754500	754500	754500
	Profit Before term loan and tax	1192330	1613220	2034110	1893310	1752510
	Interest on term loan (11%)	688926.7	580148.8	435111.6	290074.4	145037.2
	Profit before tax	503403.3	1033071.2	1598998.4	1603235.6	1607472.8
	Tax (30%)	151020.99	309921.36	479699.52	480970.68	482241.84
	Total Profit	352382.31	723149.84	1119298.88	1122264.92	1125230.96

Underlying assumptions for probability calculation are:-

The installed capacity of the plant is assumed at 750 MT per annum. The capacity utilization is taken at 70% for the first year. The raw material price is assumed at Rs. 50/- per KG. The selling price is taken at Rs.60-62/- per KG. Power cost is taken at Rs.8/- per unit. Interest rate on long term loan is taken at 11%.

15. **BREAKEVEN ANALYSIS**

Fixed Cost (FC):	Rs. In lakhs
Wages & Salaries	12.6
Repairs & Maintenance	3.5
Depreciation	7.55
Admin. & General expenses	3.75
Interest on Term Loan	6.88
Total	34.28

Fixed Cost: 34.28

Profit After Tax: 3.52

$$\text{BEP} = \text{FC} \times 100 / \text{FC} + \text{P}$$

$$34.28 / 37.8 \times 70 / 100 \times 100$$

63.48%

16. **STATUTORY/GOVERNMENT APPROVALS**

There is no specific statutory requirement for plastic industry process. However, MSME registration various taxation related registration and labour law related compliances have to be ensured. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

17. **BACKWARD & FORWARD LINKAGES**

There are no specific backward or forward linkages related techno-economic advantages or synergies for this type of project. However, in future after achieving certain growth entrepreneur may consider backward linkage.

18. TRAINING CENTRE AND COURSES:

There are number of institutions providing facilities and training courses on production/marketing for the proposed project. These are Central Institute of Plastic Engineering and Technology (CIPET), Indian Institute of Packaging Management (IIPM), Plastic and Rubber Institute (PRI), Indo German Tool Room (IGTR), etc.

Udyamimitraportal (link : www.udyamimitra.in) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship program helps to run business successfully is also available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

Disclaimer:

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.