PROJECT PROFILE
ON
POWDER COATING

1. NAME OF THE PROJECT : POWDER COATING

2. QUALITY AND STANDARDS : AS PER CUSTOMERS' SPECIFICATIONS

3. PRODUCTION CAPACITY : QTY. PER ANNUM : 70,000 SQ. MTRS.

   VALUE : Rs. 38,50,000/-

4. MONTH & YEAR OF PREPARATION : MARCH, 2011

5. PREPARED BY :

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1. INTRODUCTION:

The Powder coating is a coating which is applied on the job in the powder form, it does not require any liquid carrier while the paint can be applied on the job in the liquid form only and requires the liquid carrier which causes the dropping sag, run and storage problem etc. It is a dry paint, which gives almost 100% finish maximum material use with no wastage in over spray, spillage etc.

2. MARKET POTENTIAL:

The powder consist of homogenous synthetic resin, pigments and other additives and in some powders the hardener or cross linking agents are used. The powder can be thermoplastic or thermosetting type. The thermoplastic materials like polyethylene, PVC, PTFE etc. are more widely used. Now-a-days the powder coating is find very wide applications in the sheet material components for the purpose of protection as well as better looking. These components are steel cabinet of Computers, VCR, VCP, Panel Boards of sophisticated equipment, metal components in Telecom Industries, steel furniture, domestic appliances, auto parts, hardware, machine parts and architectural section etc.

The common problems observed are the difficulty in changing the colour and peeling of the coating etc. For excellent results the seven tanks cleaning operation can be applied on the job. Though this coating is costlier than the simple paint, its long life and excellent looking proves to be cheaper.

3. BASIS & PRESUMPTIONS:

(i) The efficiency of machinery is taken at 70%. The unit will work on single shift basis of 8 hrs. per day and 25 days in a month and 300 days in a year. of the total production capacity.

(ii)

(iii) The time period to achieve the full envisaged capacity utilisation is one year.

(iii) The labour wages are as per the prevailing rates in the market.

(iv) The interest rate for fixed and working capital is taken as 18%.

(v) The margin money requirement will be 30% of the total cost of this project.

(vi) The pay back period is 5 years.

(vii) The land requirement is 150 Sq. mtrs. and the built up area is 100 sq.mtr.

4. IMPLEMENTATION SCHEDULE:

Time required for preparation of Project report	:	One month
Selection of Site	:	One month
Registration as SSI Unit	:	One Week
Time required for acquiring the loan	:	Three months
Construction of building	:	Three months
Machinery procurement, commissioning & erection	:	One months
Recruitment of labourer etc.	:	One month
Trial runs	:	One month

5. TECHNICAL ASPECTS:

(i) Process Outline:

First the surface which is to be coated is cleaned perfectly by giving a pre-treatment i.e. degreasing, chromating so that the oil, grease, dust and rust should not remain there. Now give a phosphate coat on the surface by phosphating process, wash and dry the object. Dry powder is filled in a hopper where it is fluidised by low pressure gas. When it comes to the gun through a flexible hose where it is electro-statically charged by a high voltage generator. An electrostat field is produced between the gun nozzle and the earthed object, which is already kept in spry booth. The powder particles get uniformly deposited on the object. Now remove the objects from the spray booth and keep it in the oven at the temp. approx. 150^{o}C for 10 to 15 minutes the powder metals get polymerised and form a solid hard film. The over sprayed powder is recovered by a separate recovery system attached with the spray booth. Now remove the object from the oven and it is the finished goods.

(ii) Quality Specification:

The BIS has not prepared any standards for this product, hence this product can be made as per the customers' requirement.

(iii) Production capacity: (Per annum)

(a) Quantity	:	70,000 Sq. mtrs.
(b) Value	:	Rs.38,50,000/-

(iv) Approximate Motive Power:

The approximate Motive Power is required 30 KWH.

(v) Pollution Control:

This unit does not make so much effluents because the water is used only for cleaning and phosphating purposes.

(vi) Energy Conservation:

By adjusting the process and utilisation of machinery the proper utilisation and conservation of the energy can be done.

6. FINANCIAL ASPECT:

1. FIXED CAPITAL:

Land & Building	Area	Rate	Value (Rs.)
Land	200 Sq. mtrs.	2000/Sq. mtr.	4,00,000/-
Built up area	100 Sq. mtrs.	5000/Sq. mtrs.	5,00,000/-
		Total :	9,00,000/-

2. Machinery & Equipment:

Sr. No.	Description	Qty.(Nos.)	Value (Rs.)
a)	Production Unit		
	Tanks (for surface cleaning System, Pickling, phosphating etc.)	8	1,00,000/-
	Powder spray equipment output capacity 3kg.hr. attached with other accessories.	1	1,20,000/-
	Powder spray booth with cyclone type recovery system, overall dimension 1.5x1.5x2.5 meters with blower motor 2 HP 5000 M3/hr. air exhaust.	1	1,20,000/-

Sr. No.	Description	Qty.(Nos.)	Value (Rs.)
	Powder curing oven with dimension 2x2.5x2M, heat load 15KW, max. temp. 200^{o}C blower motor 1 HP 1.5 KW, 60/40 IR Con heater	1	1,60,000/-
	Compressor 5000 M3/hr. cap.	1	50,000/-
	Over Head Crane – 2 Ton cap.	1	50,000/-
	Testing equipment		
	Pollution Control Equipment & facilities	L.S.	1,00,000/-
	Electrification & Installation charges @ 10% of the cost of machinery & equipment		76,000/-
	Total cost of machinery & equipment		7,76,000/-
	Cost of office equipment & Working Capital etc.		1,00,000/-
		Total :	Rs. 8,76,000/-

3. Pre-operative Expenses Rs. 30,000/-

Total Fixed Capital =(1+2+3)

Fixed Capital :	Rs. 9,00,000/-
Machinery & Equipment:	Rs. 8,76,000/-
Pre-operative Expenses :	Rs. 30,000/-
	Rs. 18,06000/-

4. Working Capital (Per Month):

(i) Personnel:

Designation	Nos.	Salary	Total (Rs.)
Manager-cum-Supervisor	1	10,000/-	10,000/-
Skilled Worker	2	5,000/-	10,000/-
Workers	3	4,000/-	12,000/-

Office clerk cum Accountant	1	6,000/-	6,000/-
Total salaries + Perquisites @ 16% salary		6,080/-	38,000/-
		Total :	44,080/-

(ii) Raw material including packaging requirement (Per Month)

Particulars	Qty.	Rate	Value (Rs.)
Powder of Expoxy, Acrylic, Polyester, Hybrid & Polyurethene	230	450/-	1,03,500/-
Miscellaneous chemicals for Cleaning & phosphating etc.	L.S.		5,000/-
		Total :	1,08,500/-

(iii) Utilities (Per Month)

Power 30 KWH @ Rs. 5/- per unit		16,875/-
Water	L.S.	1,000/-
	Total :	17,875/-

(iv) Other Contingent Expenses (Per month)

	(Rs.)
Postage and stationery	1,000/-
Telephone	2,000/-
Consumable stores	1,000/-
Repairs and Maintenance	2,000/-
Transportation charges	1,000/-
Advertisement and publicity	1,000/-
Insurance	2,000/-
Miscellaneous Expenses	1,000/-
Total:	11,000/-

(v) Total Recurring Expenditure (Per Month) : (i)+(ii)+(iii)+(iv)

(i) Personnel:	Rs. 44,080/-
(ii) Raw material including packaging requirement	Rs.1,08,500/-
(iii) Utilities (Per Month)	Rs. 17,875/-
(iv) Other Contingent Expenses	Rs. 11,000/-

=	Rs. 1,81,455/-

(vi) Total Working Capital (on three month basis) Rs. 5,44,365/-

5. Total Capital Investment:

(i) Fixed Capital	-	Rs. 18,06,000/-
(ii) Working Capital	-	Rs. 5,44,365/-

Total	-	Rs. 23,50,365/-

7. **MACHINERY UTILIZATION:**

The suggested plant & machinery are sufficient to achieve the target.

8. FIANCIAL ANALYSIS :

(i) Cost of Production (per year)

	Rs.
Total recurring cost per year	21,77,460/-
Depreciation on building @ 5%	25,000/-
Depreciation on machinery& equipment @ 10%	87,600/-
Depreciation on office equipment @ 20%	20,000/-
Interest on total Investment 14%	3,29,051/-

Total cost of production	26,39,111/-

(ii) Turn over (per year)

Item	Qty. Sq. meter	Rate (Rs.)/ Sq. meter	Amount (Rs.)
Powder coating	70,000	55/-	38,50,000/-

(iii) Net Profit (Per year)

Turnover	Cost of production	Profit
Rs. 38,50,000/-	Rs. 26,39,111/-	Rs. 12,10,889/-

(iv) Net Profit Ratio = Net Profit per year x 100 / Turn Over Per Year

= Rs. 12,10,889/- x 100 / Rs. 38,50,000/- = 31.45%

(v) Rate of Return = Net Profit per year x 100 / Total Investment

= Rs. 12,10,889/- x 100 / Rs. . 23,50,365/- = 51.52%

(vi) Break-even Point (% of total production envisaged)

(i) Fixed Cost

		Rs.
a)	Depreciation on machinery & equipment	87,600/-
b)	Depreciation on office equipment	20,000/-
c)	Depreciation on building	25,000/-
d)	Interest on total investment	3,29,051/-
e)	Insurance	36,000/-
f)	40% of Salary and Wages	2,11,584/-
g)	40% of other contingent expenses	52,800/-
	Total Fixed Cost	7,62,035/-

(ii) Net Profit per year = Rs. 12,10,889/-

$$\text{B.E.P. \%} = \frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost + Profit per year}}$$

$$= \frac{\text{Rs. 7,62,035/-} \times 100}{\text{Rs. 7,62,035/- + Rs. 12,10,889/-}}$$

$$= 38.62\%$$

9. NAMES & ADDRESSES OF PLANT & MACHINERY SUPPLIERS

1. M/s. Statefield Equipment Pvt. Ltd.
   A-54/55, H Block, MIDC
   Pimpri, Pune-6.

2. M/s. Dayline Spray System (P) Ltd.
   36, Civil Line
   Devas-455 001.

3. M/s. Graver & Weel (India) Ltd.,
   Painting & Fire Protection System Division
   Akurli Road, Kandiwali (W)
   Mumbai-400 001.

4. M/s. Komal Agencies
   Opp. Guru Nanak Petrol Pump
   4, Shivaji Colony, Andheri (East)
   Mumbai-400 099.

10. NAMES & ADDRESSES OF RAW MATERIAL SUPPLIERS

1. M/s. Hard Castle & Waud Manufacturing Co. Ltd.
   Brabourne Stadium
   87, Veer Nariman Road
   Mumbai-400 020.

2. M/s. Jenson & Nicalson (India) Ltd.,
   Meklzie Bldg., Ballard Estate
   Mumbai.

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