

Teflon Products

PRODUCT CODE	: 303910003
QUALITY AND STANDARDS	: As per customer's specifications
PRODUCTION CAPACITY	: Qty. : 17,500 kgs. Value : Rs. 1,35,62000
MONTH AND YEAR OF PREPARATION	: January, 2003
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INTRODUCTION

Teflon is considered to be a high performance engineering plastic because of its service temperature up to about 300°C and high impact strength. Its tensile strength, fatigue strength and creep resistance are moderate. The electrical insulation properties are outstanding and are nearly as good as those of polyethylene. Teflon has excellent self-lubricating property and chemical resistance. Because of the above mentioned properties, Teflon products such as : rings, oil seals, gaskets, rods, bushes bearings etc. have got wide applications in automobile, electrical and chemical industries.

MARKET POTENTIAL

The automobile, electrical and chemical industries are growing at a faster rate in our country, therefore, there is a good demand for the Teflon products to be used by these industries.

BASIS AND PRESUMPTIONS

1. The scheme is based on single shift basis (8 hours per shift) and 300 working days per annum.
2. The estimated costs are drawn for the production capacity generally indicated techno-economically viable for a model type of activity.
3. Costs in respect of land and building, machinery and equipments, raw materials and the selling prices of the finished products etc. are those generally obtained at the time of preparation of the project profile and may vary depending on various factors.
4. The time period for achieving full/ envisaged capacity utilization is three years.
5. State Financial Corporation presently charges the interest rates @ 14% per annum.

6. The labour wages are considered as per the prevailing rates which may vary from place to place.
7. The margin money is 25% for fix capital and working capital.
8. The pay back period for the project is 4 years.

IMPLEMENTATION SCHEDULE

1. Time required for preparation of project report, Selection of site and SISI Registration etc. is Six months.
2. Time required for availability of finance/loan, construction of factory shed, Machinery procurement, erection and commissioning, trial runs and recruitment of staff and labour, permanent registration etc.

TECHNICAL ASPECTS

Process of Manufacture

Teflon moulding powder is filled in the mould and pressed in the hydraulic press to get the intermediate product. It is then sintered in the oven at 600°C where the Teflon particles are fused with each other to the strength. The product is then cooled and machined on high speed lathe, if required according the need of the end-product.

Production Capacity

Quantity : 17,500 Kgs.
Value : Rs. 1,35,62,000

FINANCIAL ASPECTS

A. Fixed Cost

(i) Land and Building

Shed 125 sq mtr. Rent Rs. 2,500 (per month)

(ii) Machinery and Equipments

Sl. No.	Description	Ind./ Imp.	Qty.	Value (Rs.)
a.	Hydraulic press-150 tonnes	Ind.	1	3,50,000
b.	Hydraulic press-50 tonnes	Ind.	1	1,25,000
c.	Hydraulic press-25 tonnes	Ind.	1	75,000
d.	Sintering oven	Ind.		3,00,000
e.	Machine and equipments (lathe m/c. etc.)	Ind.		3,00,000
f.	Moulds	Ind.	LS	60,000
g.	Testing equipments	Ind.	LS	50,000
h.	Electrification and installation @ 10% of the cost of machines			12,000
	Office equipment/ working table			20,000
	<i>Pre-operative Expenses</i>			8,000
	Total			13,00,000

B. Working Capital (per month)

(i) Personnel

Sl. No.	Designation	No.	Salary (Rs.)	Total (Rs.)
1.	Manager-cum-supervisor	1	7,500	7,500
2.	Accountant	1	5,000	5,000
3.	Clerk	1	2,500	2,500
4.	Skilled Workers	4	2,000	8,000
5.	Unskilled Workers	6	1,500	9,000
	Total			32,000
	<i>Add perquisites @ 15%</i>			4,800
	Total			36,800
	Or say			37,000

(ii) Raw Materials (per month)

Sl. No.	Particulars	Ind./ Imp.	Qty Kg.	Rate/ Units (Rs.)	Value (Rs.)
1.	Teflon Powder	Ind.	1500	600	9,00,000
2.	Packing Material	Ind.	LS		15,000
			Total		9,15,000

(iii) Utilities (Rs.)

1.	Power 40 H.P.				10,000
2.	Water				1,000
			Total		11,000

(iv) Other Contingent Expenses (per month) (Rs.)

1)	Rent				2,500
2)	Postage and stationery				1,000
3)	Consumable stores				1,000
4)	Transport charges				1,000
5)	Advertisement and publicity				1,000
6)	Miscellaneous expenditure				500
			Total		7,000

(v) Total Recurring Expenditure (per month) (Rs.)

1.	Personnel				37,000
2.	Raw material				9,15,000
3.	Utilities				11,000
4.	Other contingent expenses				7,000
			Total		9,70,000

(vi) Total Working Capital (for 3 Months) Rs. 29,10,000

C. Total Capital Investment

(i) Fixed capital		Rs. 13,00,000
(ii) Working capital (for 3 Months)		Rs. 29,10,000
	Total	42,10,000

Machinery Utilization

Bottleneck operation	Hydraulic presses
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FINANCIAL ANALYSIS

1. Cost of Production (per year) (Rs.)

a)	Total recurring cost		1,16,40,000
b)	Depreciation on machinery and equipment @ 10%		1,20,000
c)	Depreciation of office equipments @ 20%		16,000
d)	Interest on total capital investment @ 14%		5,89,400
		Total	1,23,65,400
		Or say	1,23,65,000

2. Turnover (per year)

	Qty. Kgs.	Rs./ Kg.	Amount (Rs.)
Teflon products	17,500	775	1,35,62,500
		Or say	1,35,62,000

3. Net Profit (per year)

$$\begin{aligned}
 &= \text{Total sales} - \text{Cost of Production} \\
 &= \text{Rs. } 1,35,62,000 - 1,23,65,000 \\
 &= \text{Rs. } 11,97,000
 \end{aligned}$$

4. Net Profit Ratio

$$\begin{aligned}
 &= \frac{\text{Net Profit} \times 100}{\text{Turnover}} \\
 &= \frac{11,97,000 \times 100}{1,35,62,000} \\
 &= 9\%
 \end{aligned}$$

5. Rate of Return

$$\begin{aligned}
 &= \frac{\text{Net profit} \times 100}{\text{Total capital investment}} \\
 &= \frac{11,97,000 \times 100}{42,10,000} \\
 &= 28.43\%
 \end{aligned}$$

6. Break-even Point

(i) Fixed Cost	(Rs.)
a) Depreciation	1,20,000
b) Rent	30,000
c) Interest on total capital investment	5,89,400
d) 40% of salary and wages	1,77,600

e) 40% of other contingent expenses (Including rent)	21,600
Total	9,38,600
Or say	9,39,000

(ii) Net Profit (per year)

$$\begin{aligned}
 \text{B.E.P.} &= \frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{Profit}} \\
 &= \frac{9,39,000 \times 100}{9,39,000 + 11,97,000} \\
 &= 43.96\%
 \end{aligned}$$

Addresses of Machinery and Equipment Suppliers

1. M/s. Rubber Machinery Crop.
3-Cawal Street,
Kolkata
2. M/s. Agarwal and Co.
Merchantile Building,
Lal Bazar- St.
Kolkata-1
3. M/s. Excellent Engineer
N.H.8, Near Dahisar Check Naka
P.O. Mira-401104,
Thane. (Maharashtra).

4. M/s. S.S. Engineering
A/202, Shree Siddhi Vinayak
Tower, Marve Road,
Orlem Tank Road,
Malad (West),
Mumbai-400064.
5. M/s. Hindustan Hydraulics Pvt. Ltd.
Vikramaditya Towers,
HP-1, First Floor,
Alaknanda Shopping Complex,
Kalkaji,
New Delhi.
6. M/s. Nuchem Plastics Ltd.
Engineering Division,
Faridabad-121006.
7. M/s. Pieco. Hydraulics
Ramrajtoka,
Howrah (W.B).

Addresses of Raw Material Suppliers

1. M/s. Hindustan Fluorocarbons
1042, Babukhan Estate,
Basheerbagh,
Hyderabad-500001.
2. M/s. Gujarat fluorocarbons Ltd.
Vadodara, Gujarat.