PROJECT PROFILE

ON

COMPRESSION MOULDED PLASTIC GOODS

MONTH & YEAR
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COMPRESSION MOULDED PLASTIC GOODS

INTRODUCTION

The compression moulding unit will be able to manufacture compression moulded items such as components required for automobiles, electrical accessories and fittings, cameras etc. And items such as cigarette cases, ash trays, table calendars etc. The compression-moulding machine shall be suitable for moulding of bakelite, urea formaldehyde and melamine formaldehyde moulding compounds. The market for these items is expanding with the industrial growth in the country.

MARKET

The plastics industry seems to be going through a major change as the processing units shift focus from traditional packaging to newer segments such as equipment manufacturing for automobiles, agriculture, poultry farming, agriculture and blown films.

The plastics product manufacturing and processing business, which employs over 3.6 million people directly in India, is considered as one of the most sought after industries among the entrepreneurs and start ups in India. The industry is growing at an annual rate of over 15 per cent and the emerging segments include agro-based as well as consumer based.

The proposed investment of Rs 1.5 lakh crore ($37 billion) in upstream industry to set up 11 petrochemical complexes in India is expected to provide impetus for growth of polymer consumption to 15 million tonnes by 2015 according to Mr. Ashok Goel, President, Plastindia Foundation.

The Indian plastics industry, he said, has seen a consistent growth of over 15 per cent over the past five years, and the per-person consumption has doubled over the last four years to eight kg in 2010. This is expected to increase to 10 kg by 2012 and to be on par with the global consumption, 27 kg, by 2020 because of the increasing consumption across sectors like packaging, infrastructure, agriculture, automotives, healthcare and FMCG.

In agriculture alone, around 17 million hectares are to be brought under drip irrigation according to the Union Ministry of Agriculture over the next three-four years. This leads to a tremendous potential for use of plastics in irrigation and plastic pipes, Mr. Goel said.

INDIA- one of the fastest growing economies of the world, is all set to attain the premier status along with China. India is a favoured destination for overseas investors and offers the advantages of an open economy, increasing liberalization, a stable democratic political scenario, highly skilled work force with fluency in English.

After liberalization of the economy in 1992, the Government of India has been quite supportive of industry in general, taking many steps over the years for the conducive growth of business. These measures favouring economic growth, are being continuously taken by the Indian Government, irrespective of the change in power. The Government of India is endeavouring to achieve GDP growth of more than 7% in the next 10 years. It is quite possible that plastics could grow at 14%, based on historical performance.

The Indian plastics industry, with more than 4 million tons consumption in 2003 is well spread all over India. While it is estimated to be fragmented across more than 30,000 processors, the large processors are less than 100. These 100 have about 35% share of the plastics processing industry.

The historical growth of the plastics industry over the last few decades is at an impressive 12-14%, which is twice the GDP growth. The major driver of this growth is the increased standard of living of people in India (housing the second largest population in the world). It is estimated that almost 35% of the 1.2 billion population has a purchasing power equivalent to that in European countries.

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With the growth in consumption, plastic production in India is likely to grow by 60 per cent to touch 12.75 million tonne by 2012, according to an industry body.

"Plastic is an integral part of our life and its consumption is growing every year. We are expecting the production to grow by 60 per cent in line with the consumption which will be around 12.75 million tonne by FY 12," according to All India Plastics Manufacturers' Association (AIPMA) .

At present, the plastic production as well as the consumption is about eight million tonne.

The consumption has grown significantly over the last two decades and India is projected to be number three in plastic usage by 2015.

India's plastics processing sector will grow from 69,000 machines to 150,000 machines by the year 2020. India's demand for plastics in irrigation alone is pegged to cross 2.5 million tonnes by 2015. Indian automobile industry is growing at more than 18% p.a. and is hungry for plastics. The plastics processing industry is a source of great potential for global businesses. There is tremendous scope for innovative technological upgradations.

INSTALLED CAPACITY

Product	**Installed capacity per hour**	**No of working hours per day**	**Capacity per day**	**Capacity per annum 300 days per annum**
Compression moulded plastic tapes	45 Kgs	8	360 Kgs	108 MT

PLANT AND MACHINERY

S.No	**Description**	**Qty**	**Value**
1.	Hydraulic Press 50 MT		485000
2.	Hydraulic Press 25 MT		330000
3.	Buffing Machine		80000
4.	Weighing balance		60000
5.	Small hand tools		60000
6.	Cost of moulds & dies		185000
	TOTAL		**1200000**

MANUFACTURING PROCESS

For the manufacture of compression moulded plastic goods, hydraulic type moulding presses are employed. Moulds according to the articles are fixed between the platens of the hydraulic press.

The compound i.e. bakelite moulding powder is put into the cavity of a preheated mould and pressed between the platens of press. The combined effect of heat and pressure causes the cross linking change in the material leading to formation of the macro molecules. This causes the compound to fill the cavity of moulds and harden, and after a certain period the mould is opened. After removal, the mould is cleaned and is ready for next operation.

A separate mould with one or more cavities is required for every item to be moulded, and for high quality products, mould must be properly made, highly polished and should have proper heating arrangement for consistent high production.

RAW MATERIALS

For MTS 108			
	Qty-MTs	**Rate/MT**	**Value Rs. Lakhs**
Thermosetting materials	113	93000	105.09
bakelite, UF etc			
Master batches & colour	3.4	115000	3.45
TOTAL			108.54
Packing materials	108.00	1200	1.30

LOCATION LAND AND BUILDING

Built up area-Sq.ft	2000
Rent p.m.-Rs per 10 per sq.ft	20000
Advance-10 months. Rs	200000

UTILITIES

Three phase- KW	20.00
Power charges Rs. lakhs p.a	2.64
Water- For process-Litres per day	0
For human consumption-litres/day	200

MANPOWER

		Monthly wages	**Total**
Supervisor	1	9000	8000
Skilled	3	7000	21000
Unskilled	3	5000	15000
Accounts Assistant	1	6000	6000
Sales Executive	1	7000	7000
Security	2	5000	10000
sub total			68000
Add benefits		20%	13600
Total per month			81600
TOTAL PER ANNUM-Rs. lakhs			**9.79**

SCHEDULE OF IMPLEMENTATION

If the financing arrangements are finalised the project can be implemented in three months time.

COST OF PRODUCTION AND PROFITABILTY

Assumptions

Installed capacity	108 MT of compression moulded goods of various sizes and shapes per annum
Capacity utilisation	Year-1 -60% Year -2 -70% Year-3 onwards- 80%
Selling price Per MT	Rs.1.45 lakhs
Raw materials	As per the details given above
Packing materials	As per details given above
Power	Rs.2.64 lakh per annum at 100%
Wages and salaries	Rs. 9.79 lakhs with increase 5% every year.
Repairs and Maintenance	Rs.0.60 lakh per annum
Depreciation	Written down value method -15 % on machinery
Selling general and administrative expenses	Rs.30000 per month
Interest on Term loan	14% per annum
Interest on working capital	14 % per annum
Income tax	34 % on profits

LIST OF MACHINERY SUPPLIERS:

1. M/s Plastic Machine Mfg. Co, Chirwadi Lane, 2nd Cross LG Road, Goregaon (E), Bombay.
2. Windsor Machines India Ltd, 2 J, Century Plaza, Teynampet, Chennai – 600 018.
3. Euro pack Machines India Pvt Ltd, 52, Bindal Industrial Estate, Sakinaka, Andheri East, Mumbai – 500 072.
4. Ambica Engineering & Wire Products, L 45, GIDC Estate, Odher, Ahmedabad – 382415,

5. Hind Hydraulics & Engineers, Faridabad, Plot No. 13, Sector 74, Faridabad – 121005.

6. Prasad Groups & Companies, Plot No. 14 – 16 GIDC Industrial Estate, Phase 1 Valva, Ahmedabad – 382445

7. HMT International Ltd, 59 HMT Bhavan, Bellary Road, Bangalore – 560 032.

8. M/s Lohas & Co, 10, Khatawadi Lane, Bombay-400 004.

9. M/s Stearing Industry, 9, Dalal Street, Bombay.

10. M/s K. B. Hydraulic Engg. Works, IC/64, Nissan Huts, NIT, Faridabad.

11. M/s Indo Udyog Co. (P) Ltd., 40, Okhla Industrial Area, New Delhi.

12. M/s Presswel Industries, BP 2A/10 Gandhi Chowk, Faridabad.

RAW MATERIAL SUPPLIERS

1. Surbhee Ploymers Pvt Ltd,AD-30 A,Pitampura(New Power House),Celhi-110088
2. 2.Shri Arihani Technoplast Pvt Lt,521/C Urla Industrial Complex, Valsad-396001
3. Satya Organics Pvt Ltd,Saketh,No:6 ,3rd Cross-3rd Main ,Behind Govt School,J.P.Nagara,7th Phase,Bangalore-560078

FINANCIAL ASPECTS

1. COST OF PROJECT

	[Rs.lakhs]
Land & Building (Advance)	2.00
Plant & Machinery	12.00
Other Misc. assets	0.50
Pre-Operative expenses	2.00
Margin for WC	2.23
	18.73

2. MEANS OF FINANCE

Capital	9.73
Term Loan	9.00
	18.73

3. COST OF PRODUCTION & PROFITABILITY STATEMENT

[Rs.lakhs]

Years	1	2	3	4	5
Installed Capacity-MTs	108	108	108	108	108
Utilisation	60%	70%	80%	80%	80%
Production/Sales-MTs	65	76	86	86	86
Selling Price per MT-Rs.	1.45 lakhs				

Sales Value (Rs.lakhs)	**94.25**	**110.20**	**124.70**	**124.70**	**124.70**
Raw Materials	65.12	75.98	86.83	86.83	86.83
Packing Materials	0.78	0.91	1.04	1.04	1.04
Power	1.58	1.85	2.11	2.11	2.11
Wages & Salaries	9.79	10.28	10.79	11.33	11.90
Repairs & Maintenance	0.60	0.66	0.73	0.80	0.88
Depreciation	1.80	1.53	1.30	1.11	0.94
Cost of Production	79.67	91.21	102.80	103.22	103.70
Selling, Admin, & General exp	3.60	3.78	3.97	4.17	4.38
Interest on Term Loan	1.26	1.10	0.79	0.47	0.16
Interest on Working Capital	1.14	1.14	1.14	1.14	1.14
Total	85.67	97.23	108.70	109.00	109.38
Profit Before Tax	8.58	12.97	16.00	15.70	15.32
Provision for tax	2.92	4.41	5.44	5.34	5.21
Profit After Tax	**5.66**	**8.56**	**10.56**	**10.36**	**10.11**
Add: Depreciation	1.80	1.53	1.30	1.11	0.94
Cash Accruals	7.46	10.09	11.86	11.47	11.05
Repayment of Term loan	0.00	2.25	2.25	2.25	2.25

4. WORKING CAPITAL:

	Months Consumptions	Values	%	Margin Amount	Bank Finance
Raw Materials	0.50	2.71	25%	0.68	2.03
Consumables	2.00	0.13	25%	0.03	0.10
Finished goods	0.50	3.32	25%	0.83	2.49
Debtors	0.50	3.93	10%	0.39	3.54
Expenses	1.00	0.30	100%	0.30	0.00
		10.39		2.23	8.16

5. PROFITABILITY RATIOS BASED ON 80% UTILISATION

Profit after Tax / Sales	=	10.56 / 124.70	8%
Profit before Interest and Tax / Total Investment	=	17.93 / 26.89	67%
Profit after Tax / Promoters Capital	=	10.56 / 9.73	109%

6. BREAK EVEN LEVEL

Fixed Cost (FC):

	[Rs.lakhs]
Wages & Salaries	10.79
Repairs & Maintenance	0.73
Depreciation	1.30
Admin. & General expenses	3.97
Interest on TL	0.79
	17.58

Profit Before Tax (P) 16.00

$$BEL = \frac{FC \times 100}{FC + P} = \frac{17.58}{33.58} \times \frac{80}{100} \times 100$$

42% of installed capacity