

PROJECT PROFILE
ON
DISPOSABLE CUPS AND PLATES

MONTH & YEAR
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DISPOSABLE CUPS AND PLATES

INTRODUCTION

Plastic disposable cups are used widely in all sectors for serving hot and cold beverages despite the introduction of the paper cups. The consumption of the disposable cups is increasing as the consumption of beverages and other items are increasing.

MARKET DEMAND

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 a 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
Disposable cups	12500 nos	8	1.00 lakh nos	300 lakhs(average weight 2 grams)

PLANT AND MACHINERY

S.no	Items	Qty	Rs. lakhs
1	Conventional Roll Fed Automatic thermoforming machine	1	7.50
2	Scrap grinder		1.25
4	Dies for forming machine		1.25
	Total		10.00

MANUFACTURING PROCESS

The basic machinery required is a thermoforming plant in which PP/PS sheet is fed from bobbin reels and the required length is dragged from these reels. The conveyor chains carry the sheet through the heater assembly to the forming table. The heated sheet is punched to form the shape of mould. The cups thus formed are stocked and the punched waste sheet is wound on the scrap sheet winder. To get printed cups, the sheets are printed before forming into cup.

RAW MATERIALS

For -lakh 300 cups			
	Qty-kgs	Rate/MT	Value Rs. Lakhs
High impact Polystyrene sheets	60000	102	61.20
TOTAL			61.20
Packing materials	300.00	1200	3.60

LAND AND BUILDINGS

Built up area-Sq.ft		2500
Rent p.m.-Rs per .10 per sq.ft		25000
Advance-10 months. Rs		250000

UTILITIES

Powers & Fuels

Three phase-	KW	50.00
Power charges Rs.lakhs p.a		6.60
Water- For process-Litres per day		0
For human consumption-litres/day		200

MANPOWER

		Monthly wages	Total
Skilled	1	7000	7000
Unskilled	2	5000	10000
Accounts Assistant	1	6000	5000
Sales Executive	1	7000	6000
Security	2	5000	10000
sub total			40000
Add benefits		20%	8000
Total per month			48000
TOTAL PER ANNUM-Rs. lakhs			5.76

SCHEDULE OF IMPLEMENTATION

After the funding arrangements and the finalization of the premises, the project can be implemented within 3 months period.

COST OF PRODUCTION AND PROFITABILITY

Assumptions

Installed capacity	Disposable plastic cups 300 lakhs per annum.
Capacity utilisation	Year-1 -60% Year -2 -70% Year-3 onwards- 80%
Selling price	Re.0.32 per cup
Raw materials	As per the details given above
Packing materials	As per details given above
Power	Rs.3.96 lakhs per annum at 100%

Wages and salaries	Rs. 5.76 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.40000 per month
Interest on Term loan	14% per annum
Interest on working capital	14% per annum
Income tax	34% on profits

ADDRESSES OF MACHINERY & EQUIPMENT SUPPLIERS

I.P.K.Packaging India Pvt Ltd, S.F.No: 9, Jaganath Industrial estate,
Chinnavedampatti, Ganapathi, Coimbatore-641006

Mangalam Industrial combines, 7-A (NP) K.G.Street, Padi,
Chennai-600 050

2. Wonder pack Industries (P) Ltd, 72, 1st Floor, Shivalaya Mansion,
Hamington Road, Mumbai - 400 008.

3. M/s Plasmec Engineering (P) Ltd, Plot No. A-325, Road No.21,
Wagle Industrial Estate, Thane-400 604.

4.M/s Plastopack, B-15, industrial Estate, Mogappair,
Chennai-600 050.

ADDRESSES OF RAW MATERIAL AND OTHER CONSUMABLE SUPPLIERS

1. M/s Polychem Ltd, 7, Jamshedji Tata Road, Churchgate Reclamation, Bombay.
2. M/s East Anglia Plastics (I) Ltd, 3 Camac Street, Calcutta-700 016.
3. M/s Hindustan Polymers Ltd, Gopalapatnam, Vishakapatnam 530 027.
4. M/s BASF India Ltd, Tiecicon House, Dr. E. Moses Road, Bombay-400 011.
5. M/s Hindustan Polymers, Naar Building, 1-E, Jhandewalan, New Delhi.
6. M/s Indian Commercial Co (P) Ltd.,7, Jamshedji Tata Road, Churchgate Reclamation, Bombay-400 020.

FINANCIAL ASPECTS

1. COST OF PROJECT

	[Rs.lakhs]
Land & Building (Advance)	2.50
Plant & Machinery	10.00
Other Misc. assets	0.50
Pre-Operative expenses	1.50
Margin for WC	1.54
	<u>16.04</u>

2. MEANS OF FINANCE

Capital	8.54
Term Loan	7.50
	<u>16.04</u>

3. COST OF PRODUCTION & PROFITABILITY STATEMENT

	[Rs.lakhs]			
Years	1	2	3	4
Installed Capacity-lakhs	300	300	300	300
Utilisation	60%	70%	80%	80%
Production/Sales-lakhs	180	210	240	240
Selling Price per piece-Rs.	0.32			
Sales Value (Rs.lakhs)	57.60	67.20	76.80	76.80
Raw Materials	36.72	42.84	48.96	48.96
Packing Materials	2.16	2.52	2.88	2.88
Power	3.96	4.62	5.28	5.28
Wages & Salaries	5.76	6.05	6.35	6.67
Repairs & Maintenance	0.60	0.66	0.73	0.80
Depreciation	1.50	1.28	1.08	0.92
Cost of Production	<u>50.70</u>	<u>57.97</u>	<u>65.28</u>	<u>65.51</u>

Selling, Admin, & General exp	4.80	5.04	5.29	5.55
Interest on Term Loan	0.98	0.85	0.61	0.36
Interest on Working Capital	0.67	0.67	0.67	0.67
Total	57.15	64.53	71.85	72.09
Profit Before Tax	0.45	2.68	4.95	4.71
Provision for tax	0.00	0.91	1.68	1.60
Profit After Tax	0.45	1.77	3.27	3.11
Add:	1.50	1.28	1.08	0.92
Depreciation				
Cash Accruals	1.95	3.04	4.35	4.03
Repayment of Term loan	0.00	1.88	1.88	1.88

4. WORKING CAPITAL:

	Months	Values	%	Margin Amount	Bank Finance
	Consumptions				
Raw Materials	0.50	1.53	25%	0.38	1.15
Consumables	2.00	0.36	25%	0.09	0.27
Finished goods	0.50	2.11	25%	0.53	1.58
Debtors	0.50	2.40	10%	0.24	2.16
Expenses	1.00	0.30	100%	0.30	0.00
		6.70		1.54	5.16

5. PROFITABILITY RATIOS BASED ON 80% UTILISATION

$$\frac{\text{Profit after Tax}}{\text{Sales}} = \frac{3.27}{76.80} \quad 4\%$$

$$\frac{\text{Profit before Interest and Tax}}{\text{Total Investment}} = \frac{6.23}{21.20} \quad 29\%$$

$$\frac{\text{Profit after Tax}}{\text{Total Investment}} = \frac{3.27}{8.61} \quad 38\%$$

Promoters Capital

8.54

6. BREAK EVEN LEVEL

Fixed Cost (FC):

	[Rs.lakhs]
Wages & Salaries	6.35
Repairs & Maintenance	0.73
Depreciation	1.08
Admin. & General expenses	5.29
Interest on TL	0.61
	<hr/>
	14.06

Profit Before Tax (P) 4.95

$$\text{BEL} = \frac{\text{FC} \times 100}{\text{FC} + \text{P}} = \frac{14.06}{19.01} \times \frac{80}{100} \times 100$$

59% of installed capacity