

PROJECT REPORT

Of

FOOD STORAGE CONTAINERS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Food Storage Containers**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxx
Pin: xxxxxx State: xxxxxxxxx
Mobile xxxxxx
- 5 Product and By Product : **FOOD STORAGE CONTAINERS**
- 6 Name of the project / business activity proposed : **FOOD STORAGE CONTAINERS UNIT**
- 7 Cost of Project : Rs.24.11 Lakhs
- 8 Means of Finance
Term Loan Rs.16.2 Lakhs
Own Capital Rs.2.41 Lakhs
Working capital Rs.5.5 Lakhs
- 9 Debt Service Coverage Ratio : 2.49
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 54%
- 13 Employment : 12 Persons
- 14 Power Requirement : 30.00 HP
- 15 Major Raw materials : PP Granules, Plasticizers, Packing material
- 16 Estimated Annual Sales Turnover (Max Capacity) : 121.28 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	16.40
Furniture & Fixtures	1.60
Working Capital	6.11
Total	24.11

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.41
Working Capital(Finance)	5.50
Term Loan	16.20
Total	24.11

FOOD STORAGE CONTAINERS

Introduction: A food storage container is used to hold food at room temperature, in the refrigerator, or in the freezer. Plastic containers are also available in many sizes, shapes, and styles. They are found in different degrees of sturdiness, from light weight disposable containers to heavy duty rigid plastic container. They are manufactured with clear, frosted, and colored plastic and most have airtight lids. They work great for storing food in the refrigerator and freezer, where the airtight lids prevent moisture loss. The airtight lids keep foods, such as cookies, crackers, chips, and cereals from becoming stale for a longer period of time when stored at room temperature. Plastic containers work well for all types of storage. They store well together and can really help organize a storage area. They are available in so many shapes and sizes that it is easy to find one to fit your special needs. Foods containing a lot of liquid, store easily in this type of container. Some brands have been designed to stack neatly to assist in storing them both when not in use and when using them to store food. They are lightweight and easy to handle. The plastic containers are sturdy enough to be easily stacked on each other when storing food in the refrigerator, freezer, and in the cupboard. Because of the plastic material, breakage is not as much of a concern as it is with glass containers. This project report includes the manufacturing of food container having average weight up to 200 grams using a single injection moulding machine. The project cost may vary with the production capacity and as per the shape and design of the output product.



Uses & Market Potential: Household Food Storage Containers helps in the safety and maintaining good quality of food. Ideal Household Food Storage Containers extends the shelf life of food, which depends on the food type, packaging and storage conditions particularly temperature and humidity. There are wide range of food packaging and containers now available made up from different materials. Refrigerator segment is one of the most innovative segment taken its root in the food storage container segment in which a wide variety of foodstuffs are contained and preserved through the use of low temperatures. Household food storage container segment has its well established market in the developed countries since ages. Food container market size is expected to grow at a CAGR of over 4.5% from 2016 to 2023. Since these products are required to be preserved for longer span of time, they are required to be packed using extremely durable, efficient and protective methods.

Raw Material: Major raw materials are as follows:

1. PP or ABS Granules (Food grade)
2. Plasticizers
3. Packing material

Machinery Requirement: Major machines & equipments are as follows:

S No.	Description	Qty.	Amount
1.	Injection Moulding machine	1	1250000
2.	Grinder	1	65000
3.	Water Chiller	1	25000
4.	Dies & other equipments	Ls	300000
	Total Amount		1640000

Manufacturing Process: In the first step, the raw material is procured from the local authorized vendor and stored in the inventory. In the first step, the profile dies are mounted precisely in the injection moulding machine as per product dimension. The die can have the arrangement of moulding a number of pieces in a single cycle as required. After this, barrel heaters of the

injection moulding machine of screw barrel are started and brought up to desired melting temperature of the PVC.

In the next step, the pellets are added into the hopper of the injection moulding machine manually after weighing over scale. The pellets from the hopper are fed into the barrel section of the machine where the screw mounted in the machine rotates about horizontal axis. The pellets are fed into heating zone as the screw rotates. In the heating zone, plastic pellets melt to a semi-solid state and are ready to be injected into the mold of the machine. From the extruded of the machine this molten plastic pellets are injected into the die at desired pressure and temperature. The molten plastic will acquire the shape of the die and cooling cycle of the machine begins. Water is used as a cooling medium which transfers heating through a suitable cooling arrangement. The molten plastic gets solidified and acquires the shape of the die. After this, when the cooling cycle completes, the mold gets opened and the ejector pin will ejects the toothpicks outside. After this, the common runner has been removed and toothpick gets separated out. After this, the uneven excess lines, burrs are removed. The non-uniform or deformed products are crushed using grinder into small pieces. After this, the toothpicks are packed and dispatched as per the requirement.

Area: The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500 to 2000Sqft.

Power Requirement: The power consumption required to run all the machinery could be approximated as 30 Hp

Manpower Requirement: There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain

the documentation. The approximate manpower required is 12 including 1 Supervisor, 2 Plant operator, 3 unskilled worker, 2 Helper and 1 Security guard. 3 Skilled worker including Accountant, Manager and Sales person.

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require.
- NOC from State Pollution Control Board

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

PROJECTED BALANCE SHEET					
PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	4.60	7.82	11.39	14.69
Add: Additions	2.41	-	-	-	-
Add: Net Profit	4.69	6.22	7.56	9.30	10.50
Less: Drawings	2.50	3.00	4.00	6.00	7.00
Closing Balance	4.60	7.82	11.39	14.69	18.19
CC Limit	5.50	5.50	5.50	5.50	5.50
Term Loan	14.40	10.80	7.20	3.60	-
Sundry Creditors	0.77	0.87	0.93	0.99	1.04
TOTAL :	25.27	24.99	25.01	24.77	24.73
APPLICATION OF FUND					
Fixed Assets (Gross)	18.00	18.00	18.00	18.00	18.00
Gross Dep.	2.62	4.86	6.76	8.39	9.78
Net Fixed Assets	15.38	13.15	11.24	9.61	8.22
Current Assets					
Sundry Debtors	3.84	4.45	4.96	5.50	6.06
Stock in Hand	3.35	4.39	4.80	5.23	5.68
Cash and Bank	2.70	3.02	4.02	4.43	4.77
TOTAL :	25.27	24.99	25.01	24.77	24.73

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PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	76.73	88.90	99.15	109.94	121.28
Total (A)	76.73	88.90	99.15	109.94	121.28
B) COST OF SALES					
Raw Material Consumed	33.11	37.25	39.73	42.22	44.70
Electricity Expenses	3.20	3.42	3.65	3.88	4.11
Repair & Maintenance	3.84	4.45	4.96	5.50	6.06
Labour & Wages	17.89	19.68	23.62	27.16	31.23
Depreciation	2.62	2.24	1.91	1.63	1.39
Cost of Production	60.66	67.04	73.87	80.38	87.50
Add: Opening Stock /WIP	-	2.25	2.52	2.82	3.12
Less: Closing Stock /WIP	2.25	2.52	2.82	3.12	3.44
Cost of Sales (B)	58.41	66.76	73.58	80.08	87.17
C) GROSS PROFIT (A-B)	18.33	22.14	25.58	29.87	34.10
	23.88%	24.91%	25.79%	27.17%	28.12%
D) Bank Interest (Term Loan)	1.76	1.44	1.04	0.64	0.25
ii) Interest On Working Capital	0.61	0.61	0.61	0.61	0.61
E) Salary to Staff	7.69	9.22	11.07	13.28	15.27
F) Selling & Adm Expenses Exp.	3.07	3.56	3.97	4.40	4.85
TOTAL (D+E)	13.12	14.82	16.68	18.93	20.98
H) NET PROFIT	5.21	7.32	8.90	10.94	13.12
	6.8%	8.2%	9.0%	10.0%	10.8%
I) Taxation	0.52	1.10	1.33	1.64	2.62
J) PROFIT (After Tax)	4.69	6.22	7.56	9.30	10.50

PROJECTED CASH FLOW STATEMENT					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.41	-			
Reserve & Surplus	5.21	7.32	8.90	10.94	13.12
Depriciation & Exp. W/off	2.62	2.24	1.91	1.63	1.39
Increase In Cash Credit	5.50				
Increase In Term Loan	16.20	-	-	-	-
Increase in Creditors	0.77	0.10	0.06	0.06	0.06
TOTAL :	32.71	9.65	10.86	12.63	14.57
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	18.00	-	-	-	-
Increase in Stock	3.35	1.03	0.41	0.43	0.45
Increase in Debtors	3.84	0.61	0.51	0.54	0.57
Repayment of Term Loan	1.80	3.60	3.60	3.60	3.60
Taxation	0.52	1.10	1.33	1.64	2.62
Drawings	2.50	3.00	4.00	6.00	7.00
TOTAL :	30.01	9.34	9.86	12.21	14.24
Opening Cash & Bank Balance	-	2.70	3.02	4.02	4.43
Add : Surplus	2.70	0.31	1.00	0.42	0.33
Closing Cash & Bank Balance	2.70	3.02	4.02	4.43	4.77

COMPUTATION OF MAKING OF FOOD STORAGE CONTAINERS			
Item to be Manufactured Food Storage Containers			
Manufacturing Capacity per day		900	Pcs
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		2,70,000	Pcs
Total Production per Annum		2,70,000	Pcs
Year		Capacity	FOOD STORAGE CONTAINERS
		Utilisation	
I		70%	1,89,000.00
II		75%	2,02,500.00
III		80%	2,16,000.00
IV		85%	2,29,500.00
V		90%	2,43,000.00

COMPUTATION OF RAW MATERIAL					
Item Name	Quantity of Raw Material	Unit	Unit Rate	Total CostPer Annum (100%)	
PP Granules	54,000.00	Kg	65.00	35,10,000.00	
Plasticizers	6,000.00	Kg	120.00	7,20,000.00	
Packing material	Lumsum			5,00,000.00	
				-	
Total				47,30,000.00	
Total Raw material in Rs lacs					47.30

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)		
I	70%	33.11		
II	75%	37.25	5% Increase in Cost	
III	80%	39.73	5% Increase in Cost	
IV	85%	42.22	5% Increase in Cost	
V	90%	44.70	5% Increase in Cost	

COMPUTATION OF SALE					
Particulars	I	II	III	IV	V
Op Stock	-	6,300.00	6,750.00	7,200.00	7,650.00
Production	1,89,000.00	2,02,500.00	2,16,000.00	2,29,500.00	2,43,000.00
	1,89,000.00	2,08,800.00	2,22,750.00	2,36,700.00	2,50,650.00
Less : Closing Stock(10 Days)	6,300.00	6,750.00	7,200.00	7,650.00	8,100.00
Net Sale	1,82,700.00	2,02,050.00	2,15,550.00	2,29,050.00	2,42,550.00
Sale Price per pc	42.00	44.00	46.00	48.00	50.00
Sale (in Lacs)	76.73	88.90	99.15	109.94	121.28

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(10 Days requirement)	2.25	2.52	2.82	3.12	3.44
<u>Raw Material</u>					
(10 Days requirement)	1.10	1.86	1.99	2.11	2.23
Closing Stock	3.35	4.39	4.80	5.23	5.68

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	3.35		
Less:			
Sundry Creditors	0.77		
Paid Stock	2.58	0.26	2.32
Sundry Debtors	3.84	0.38	3.45
Working Capital Requirement			5.78
Margin			0.64
MPBF			5.78
Working Capital Demand			5.50

BREAK UP OF LABOUR				
Particulars	Wages	No of	Total	
	Per Month	Employees	Salary	
Supervisor	28,000.00	1	28,000.00	
Plant Operator	22,000.00	2	44,000.00	
Unskilled Worker	14,000.00	3	42,000.00	
Helper	10,000.00	2	20,000.00	
Security Guard	8,000.00	1	8,000.00	
			1,42,000.00	
Add: 5% Fringe Benefit			7,100.00	
Total Labour Cost Per Month			1,49,100.00	
Total Labour Cost for the year (In Rs. Lakhs)		9	17.89	

BREAK UP OF SALARY				
Particulars	Salary	No of	Total	
	Per Month	Employees	Salary	
Manager	25,000.00	1	25,000.00	
Accountant cum store keeper	20,000.00	1	20,000.00	
Sales	16,000.00	1	16,000.00	
Total Salary Per Month			61,000.00	
Add: 5% Fringe Benefit			3,050.00	
Total Salary for the month			64,050.00	
Total Salary for the year (In Rs. Lakhs)		3	7.69	

COMPUTATION OF DEPRECIATION				
Description	Land	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		15.00%	10.00%	
Opening Balance	Leased	-	-	-
Addition	-	16.40	1.60	18.00
	-	16.40	1.60	18.00
		-	-	
TOTAL		16.40	1.60	18.00
Less : Depreciation	-	2.46	0.16	2.62
WDV at end of 1st year	-	13.94	1.44	15.38
Additions During The Year	-	-	-	-
	-	13.94	1.44	15.38
Less : Depreciation	-	2.09	0.14	2.24
WDV at end of IIrd Year	-	11.85	1.30	13.15
Additions During The Year	-	-	-	-
	-	11.85	1.30	13.15
Less : Depreciation	-	1.78	0.13	1.91
WDV at end of IIIrd year	-	10.07	1.17	11.24
Additions During The Year	-	-	-	-
	-	10.07	1.17	11.24
Less : Depreciation	-	1.51	0.12	1.63
WDV at end of IV year	-	8.56	1.05	9.61
Additions During The Year	-	-	-	-
	-	8.56	1.05	9.61
Less : Depreciation	-	1.28	0.10	1.39
WDV at end of Vth year	-	7.28	0.94	8.22

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	16.20	16.20	0.45	-	16.20
	IInd Quarter	16.20	-	16.20	0.45	-	16.20
	IIIRD Quarter	16.20	-	16.20	0.45	0.90	15.30
	Ivth Quarter	15.30	-	15.30	0.42	0.90	14.40
					1.76	1.80	
II	Opening Balance						
	Ist Quarter	14.40	-	14.40	0.40	0.90	13.50
	IInd Quarter	13.50	-	13.50	0.37	0.90	12.60
	IIIRD Quarter	12.60	-	12.60	0.35	0.90	11.70
	Ivth Quarter	11.70		11.70	0.32	0.90	10.80
					1.44	3.60	
III	Opening Balance						
	Ist Quarter	10.80	-	10.80	0.30	0.90	9.90
	IInd Quarter	9.90	-	9.90	0.27	0.90	9.00
	IIIRD Quarter	9.00	-	9.00	0.25	0.90	8.10
	Ivth Quarter	8.10		8.10	0.22	0.90	7.20
					1.04	3.60	
IV	Opening Balance						
	Ist Quarter	7.20	-	7.20	0.20	0.90	6.30
	IInd Quarter	6.30	-	6.30	0.17	0.90	5.40
	IIIRD Quarter	5.40	-	5.40	0.15	0.90	4.50
	Ivth Quarter	4.50		4.50	0.12	0.90	3.60
					0.64	3.60	
V	Opening Balance						
	Ist Quarter	3.60	-	3.60	0.10	0.90	2.70
	IInd Quarter	2.70	-	2.70	0.07	0.90	1.80
	IIIRD Quarter	1.80	-	1.80	0.05	0.90	0.90
	Ivth Quarter	0.90		0.90	0.02	0.90	- 0.00
					0.25	3.60	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	7.31	8.46	9.47	10.93	11.89
Interest on Term Loan	1.76	1.44	1.04	0.64	0.25
Total	9.07	9.89	10.51	11.57	12.14
<u>REPAYMENT</u>					
Repayment of Term Loan	1.80	3.60	3.60	3.60	3.60
Interest on Term Loan	1.76	1.44	1.04	0.64	0.25
Total	3.56	5.04	4.64	4.24	3.85
DEBT SERVICE COVERAGE RATIO	2.55	1.96	2.27	2.73	3.15
AVERAGE D.S.C.R.			2.49		

COMPUTATION OF ELECTRICITY				
(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	30	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				4,02,840.00
Add : Minimim Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			0.54	
Total cost of Power & Fuel at 100%				4.57
Year		Capacity		Amount
				(in Lacs)
I		70%		3.20
II		75%		3.42
III		80%		3.65
IV		85%		3.88
V		90%		4.11

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