

PROJECT PROFILE – SUMMARY SHEET

<i>Project Introduction</i>
1. Project title: Manufacturing of soluble in water disposable bags with the origin of PVA
2. Sector :Construction of products from rubber and plastic(25) an subgroup of construction of variety of plastic products (2520)
3. Products/Services: Manufacturing of soluble in water disposable bags with the origin of PVA
4. Location: Free zone <input type="checkbox"/> Economic special zone <input type="checkbox"/> Industrial Estate <input checked="" type="checkbox"/> Main Land <input type="checkbox"/>
5. Project description: The main goal of carrying out this plan is manufacturing of soluble in water disposable bags with the origin of PVA.
6. Annual capacity: 319200 kilograms per year.

<i>Project Status</i>	
7. Local / internal raw material access: some of materials are supplied in the country and some of them are imported materials.	
8. Sale: Anticipated internal market: 100% Anticipated export market: %	
9. Construction Period (from beginning of activity to commercial activity): 24 months	
Schedule	Beginning of activity: In-site beginning of activity: End of project: Commercial activity beginning:

10. Project Status:

- Feasibility study available? Yes No
- Required land provided? Yes No
- Legal permissions (establishment license, environment, etc) taken? Yes No
- Partnership agreement concluded with local/foreign investor? Yes No
- Financing agreement concluded? Yes No
- Agreement with local / foreign contractor(s) concluded? Yes No
- Infrastructural utilities (electricity, water supply, telecommunication, fuel, road, etc) procured? Yes No
- List of know-how, machinery, equipment, as well as seller / builder companies defined? Yes No
- Purchase agreement for machinery, equipment and technology concluded? Yes No

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Financial Structure

11. Finance

Description	Required Local Currency			Required Foreign Currency (Thousand Dollar)	Total in Thousand Dollar
	Million Rials	Rate	Equivalent in Thousand Dollar		
Fix Capital	86,046	87000 Rials for each Dollar	989	4,768	5757
Working Capital	13,328		153	0	153
Total Investment	514,190		5910	0	5910

- Value of local equipment/machinery: thousand dollars
- Value of foreign equipment/machinery: **4,768** thousand dollars
- Value of foreign technology: thousand dollars
- Value of local technology: Million dollars
- Net Present Value (NPV): **24234,64** Million Rials for 10 Years, discount rate: 20%
- Internal Rate of Return (IRR): **33,67%**
- Payback Period (PP): **39,91%**

General Information

12. Project Type: Establishment Expansion and completion

13. Company Profile:

- Name (legal /natural persons):
- Current activity of company:
- Address:

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-Tel: Fax:
 -E-mail: Web site:
 -Legal structure of company: private sector public sector other

Plan name: Manufacturing of soluble in water disposable bags with the origin of PVA

Product introduction

Product ISIC Code and Tariff code are as follows:

No.	ISIC Code	Code Title	Tariff Code
1	2413412430	one layer PVA bag without plastic texture	39232990

Introduction of product applications

The products of this plan, soluble in water bags are made of polyviniyl alcohol. The applications of these bags in hospitals, health centers, hotels and even houses during patient's nursing intensive care to decrease the bacterial and infectious infection can be noted and be considered as one of the most effective methods to control the hospital infections.

This bag is also used to pack the food stuff such as fruit, frozen vegetables and meat products and so on.

Proposed places for plan

According to benefits of establishment in industrial estates and areas, industrial estates of Lorestan province are suggested for conducting the project.

Raw ,auxiliary,Consuming materials

No	Raw , auxiliary and packing materials	Unit	Consumption rate per year	Spoilage	Sum of raw and consuming materials	Unit price (Rial)	Annual cost (m/r)
1	polyviniyl alcohol	ton	600	-	600	152,850,000	91,710
2	corn starch	ton	600	-	600	20,000,000	12,000
3	plasticizer (Glycerin)	ton	180	-	180	81,500,000	14,670

No	Raw , auxiliary and packing materials	Unit	Consumption rate per year	Spoilage	Sum of raw and consuming materials	Unit price (Rial)	Annual cost (m/r)
4	additives	ton	45	-	45	780,000,000	35,100
5	ther combinations	ton	75	-	75	31,000,000	2,325
6	100-nylon packing	ton	200,000	2,000,000	202,000	2,000	404
7	packing of carton		20,000	200,00	20,200	30,000	606
Total							156,815

Sales plan and target markets

NO	Description	nominal Capacity (ton)	practical Capacity (ton)	Unit price (rial)	Annual sale (m/r)
1	PVA soluble in water disposable bag	1500	1350	295,000,000	442,500

Annual nominal and practical capacities

Entry production capacity of this unit is 1500 tons in one 8-hour shift in 300 working days . Practical capacity of this plan, regarding the unpredicted factors of stop working and also repair and maintenance, is considered 1350 machines with 90% efficiency of nominal capacity.

Production method and desired technology

Generally, the machinery of production line to construct PVA films and soluble in water bags are :

- Milling systems or miller of starch and polyviniyl alcohol
- Mixer set with high speed and mix maker

In this step, the produced mixture of polyviniyl alcohol, corn starch, plasticizers and homogeneous additives in thermal mixer will turn into a homogeneous and uniform compound. After complete mixing in blender, the final compound in a granule resin or powder form is guided to extrusion section.

- Granular maker
- Film production extruder

Extruder and extruding system are considered as the most important system in process steps and production line. In this system, the final mixture is transferred to this section in previous step and extruding activity is carried out in rotary form and in one column process. The extruder is

able to produce two-layer films and its result is production of soluble in water film rolls with different width.

- Bag maker
- Dual color printing machine
- Packing machines

Generally, production process includes the following steps:

- 1) Starch is crushed along with polyviniyl alcohol.
- 2) Other raw materials are added to the compound and mixed in mixer.
- 3) The mixture is transferred to granular system.
- 4) The film is produced.

The bags will be produced by bag maker.

The plan investment costs

The fixed plan investment costs is estimated to be 500, 862,14 million Rials and the working capital is estimated to be 13,328,20 million Rials.

The plan investment costs

Description	carried (m.r)	Required				Total (million rials)	%
		currency (dollar)	rial equivalent	rial (m.r)	required total		
Land	0	0	0	2,100	2,100	2,100	0%
Landscaping	0	0	0	559	559	559	0%
Building	0	0	0	27,144	27,144	27,144	5%
Machinery and equipment	0	414,816	414,816	0	414,816	414,816	81%
Installations	0	0	0	7,381	7,381	7,381	1%
Laboratory equipment and supplies	0	0	0	13,920	13,920	13,920	3%
Vehicles	0	0	0	4,000	4,000	4,000	1%
Workshop equipment	0	0	0	91	91	91	0%
Service and administrative equipment	0	0	0	941	941	941	0%
Unexpected and miscellaneous	0	0	20,741	2,807	23,548	23,548	5%
Total fixed assets	0	4,768,000	435,556,80	58,942,92	494,499,72	494,499,72	96%
Pre-	0	0	0	6,362,42	6,362,42	6,362,42	1%

Description	carried (m.r)	Required				Total (million rials)	%
		currency (dollar)	rial equivalent	rial (m.r)	required total		
exploitation costs							
Total fixed investment costs	0	4,768,000	435,556,80	65,305,34	500,862,14	500,862,14	97%
Working capital	0	0	0	13,328,20	13,328,20	13,328,20	3%
Other assets	0	0	0	0	0	0	0%
Total plan investment costs	0	4,768,000	435,556,80	78,633,54	514,190,34	514,190,34	100%

The plan production costs

250 735,10 million Rials.

No	Description	Cost (million rials)	cost in practical capacity (million rials)
1	Raw, auxiliary and packing materials	156,815	141,134
2	Production salary and wage	10,562	10,245
3	Water, electricity, fuel and communication	4,662	4,289
4	Insurance	974	974
5	Repair and maintenance	20,180	18,566
6	Marketing and ads	8,850	8,142
7	Production unpredicted and miscellaneous	3,864	3,555
8	Depreciation	44,829	44,829
Total		250735,10	231732,28

Economic indices

Table 1.Economic indices

Description	Value-measurement scale
NPV (net present value)	218589,69 million rials
IRR(internal rate of return)	29,57%
PBP (period of return of capital)	2,85 years

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