

Form1.

Summary of polypropylene gunny production plan for cement packing

1. Introduction to products or services

1.1. The goal of plan

The main goal of this plan is to establish cement gunny production unit with annual capacity of 4500 ton in Lorestan province. This plan will be exploited from 2018 with 40 personnel and 70% of the practical capacity in 2 working shifts of 8 hours and 300 day annually and will reach its 100% of the practical capacity by 2021.

1.2. Characteristics and advantages

Gunny is bags weaved by thin strips of the polypropylene (as a chemical product) which is called PP bag or gunny. This bag or gunny is supplied to market in different dimensions depending the type of usage. By dimensions it means length and width of the bags after being cut and sewing. This product of Granulated PP is colorless spherical grains of polypropylene as the raw materials produced. PP is a petrochemical product which is produced by the polymerization of propylene gas, alkaline metals and other metallic compounds and is used as raw materials with pigment (master batch) in gunny weaving factory. Using adherence property of propylene and polyethylene in melted state, there are sheets adhered to the gunny surface in multilayer form under the pressure which is called laminated gunny. This gunny is supplied in different dimensions depending on the type of application.

Definitions:

1. Granulated PP: it consists of white spherical grains of polypropylene as the raw material in gunny producing units' production line.
2. String: for weaving the gunny, the PP strings are used in 2-3 mm of width.
3. Wrap: the strings of the main background (longitudinal) of the gunny
4. Woof: the strings of the main background (transverse) of the gunny
5. String No.: it is the unit weight of the string length
6. Tex: weight of 1000 m of string in gram
7. Denier: weight of 9000 m of string in gram (a denier=9 tex)
8. Dimension: it means length and width of the gunny after cutting and sewing

Polypropylene: polymer is a petrochemical product which is produced by the polymerization of propylene gas, alkaline metals and other metallic compounds and is used as raw materials with pigment (master batch) in gunny weaving factory its characteristics and important specifications which are important in production process are as: texture, string No. weaved in gunny and string thickness.

- Tensile strength
- Stability against sunlight
- Weaved gunny dimensions

Form1.

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- Weight of 1m² gunny
- Color

1.3. Custom fees

Table1. Chips custom fees and tariffs

No.	Description	Tariff code	Fees %
1	Other, obtained of the string or similar forms of the polyethylene or polypropylene	36053300	55
2	Bag and gunny for packing of the textile synthetic or artificial fibers, not mentioned elsewhere	63053900	55

1.4. ISIC code

The plant considered is for potato chips production. The ISIC code related to this product is 1721 in the department of industry, mine and commerce systems called weaved propylene bags in subgroup textiles production and its measurement scale is ton.

Table2. Product ISIC code

ISIC code	Description	Scale
1721412337	Weaved polypropylene bags	Ton
1721412338	Simple weaved polypropylene bags	Ton
1721412339	Laminated weaved polypropylene bags	Ton

1.5. Introduction to products application

Due to high strength and relatively low cost, Polypropylene is considered highly in packing industry. In milling, petrochemical, sugar, cement, chemical fertilizer, plaster, agricultural poisons, crops such as rice, onion, potato and cement industries.

2. Suggested sites

Based on surveys, the cities such as Khoramabad, Pol Dokhtar and Borujerd are suitable sited for establishing this unit.

3. Raw, auxiliary materials and consumables

The raw materials include granulated polypropylene.

4. Sales plan and target market (local and foreign)

The target market at first is to supply locally in sections and then for additional production, the export would be done to Iraq and western neighbors.

Form1.

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Table3. Products production and sales plan

Description	2018	2019	2020	2021
Production capacity	70%	80%	90%	100%
Production level (t)				
Cement packing gunny	3150	3600	4050	4500
Sales level				
Sales (m.Rial)	204750	234000	263250	292500

5. Annual nominal and practical capacity

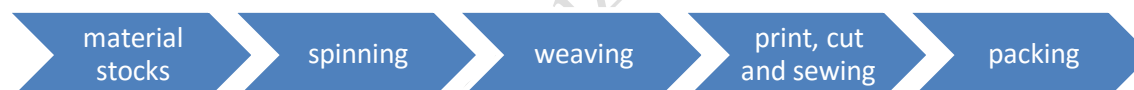
Nominal capacity

The Nominal capacity is the production in ideal situation. This capacity is registered by the machineries manufacturers and is based on the engineering and designing principles

5.2. Practical capacity

The practical capacity is the maximum available capacity in typical situation which is considered as a percentage of the nominal one. The practical capacity for this unit is 4500 ton annually in 300 days.

6. Production procedure and technology



7. Investment costs

7.1. Fixed investment

Table4. Investment costs

No.	Description	Costs			
		Rupee	Rial	Rial	Total
1	Land	0	0	3000	3000
2	Landscaping	0	0	2273	2273
3	Building construction	0	0	20895	20895
4	Machineries and equipment	230688735	104733	12850	117538
5	Branches and installation	0	0	6213	6213
6	Vehicles	0	0	1060	1060
7	Service and official equipment	0	0	305	305
8	Other and unpredicted costs (5% of above costs)	0	0	7564	7564
9	Pre-exploiting costs	0	0	1100	1100

Form1.

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10	Total fixed investment costs	230688735	104733	55215	159948
11	Working capital in 100% of capacity	0	0	52302	52302
12	Total investment costs	230688735	104733	107517	212250

7.2. Working capital

Table5. Working capital

No.	Description	Day	1 st year	Base year
1	Raw and auxiliary materials	30	10474	14963
2	Current and produced products inventory	30	12327	17324
3	Debts	30	12498	17568
4	Cash	30	1905	2448
	Total		37204	52302

8. Production costs

Table6. Production costs

Description	Total costs (m.Rial)
Raw and packing material	179550
Energy	1889
Repair, maintenance and spare parts	6330
Personnel's salary	8076
Unpredicted (6%)	11751
Depreciation	15039
Insurance	292
Sales and official costs	2925
Total operational and non-operational production costs	225852

9. Economic indices

Description	Amount-measurement scale
NPV	2112984 m Rial
IRR	26.4%
PBP	5.56 years equal to 2021

PROJECT PROFILE – SUMMARY SHEET

Project Introduction

1. Project title: polypropylene gunny production plan for cement packing

2. Sector: textile manufacturing

Sub sector: complemented textile products manufacturing, except garment

3. Products/Services: polypropylene gunny for cement packing

4. Location: ... Free zone Economic special zone Industrial Estate Main Land

5. Project description:

Gunny is bags weaved by thin strips of the polypropylene (as a chemical product) which is called PP bag or gunny. This bag or gunny is supplied to market in different dimensions depending on the type of usage

6. Annual capacity: milk: 4500 t

Project Status

7. Local / internal raw material access 100 %

8. Sale: 100% locally

- Anticipated export market 0 %

9. Construction Period 24 month

Beginning of activity: 03/2016

In-site beginning of activity: 03/2016

End of project: 02/2018

Commercial activity beginning: 03/2018

Project Status

10. Project Status:

- Feasibility study available? Yes No
- Required land provided? Yes No
- Legal permissions (establishment license, foreign currency quota, 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, equipments and know- how concluded? Yes No

Financial Structure

11. Financial Table

Description	Local Currency Required			Foreign Currency Required Million Dollar	Total Million Dollar
	Million Rials	Rate	Equivalent in Million Dollar		
Fix Capital	159948	34530	1.6	3.03	4.63
Working Capital	52302	34530	1.5	0	1.51
Total Investment	232050	34530	3.1	0.03	6.15

- Value of foreign equipment/machinery 3.03 million dollar
- Value of local equipment/machinery 0 million dollar
- Value of foreign technical know- how 0 million dollar
- Value of local technical knows- how 0 million dollar

- Net Present Value (NPV): 21129.84 Million Rial for Year
- Internal Rate of Return (IRR) 26.04%
- Payback Period (PP) 5.56 Year (2021)

General Information

12. Project Type : Establishment Expansion and completion

13. Company Profile:

- Name (legal /natural persons): Sepinud Shargh institute of strategic studies
- Company Name: engineering consultation
- Address: unit 5, No. 3, Boostan 3 St., Pasdaran, Tehran
- Tel: 02122584901 Fax: 02122580343
- E-mail: info@sepinud.com Web site: www.sepinud.com

- Local entrepreneur : private sector public sector other

Please attach follow documents if available

- Pre-feasibility study
- Feasibility study
- Legal permissions (establishment license, foreign currency quota, environment, etc)

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