

Form1.

## Summary of Carton Plast production plan

### 1. Introduction to products or services

#### 1.1. The goal of plan

The main goal of this plan is to establish carton plast production unit in Lorestan province. This plan will be exploited from 2018 with 28 personnel and 70% of the practical capacity in 1 working shift of 8 hours and 300 day annually and will reach its 100% of the practical capacity by 2020.

#### 1.2. Characteristics and advantages

Carton plast is a type of polymer of propylene which is produced as bilayer sheets (2 external sheets with thin parallel surfaces connected to each other). This material is used in industries such as packing, advertisement and printing, building and silage, maquette making. Making use of the carton plast sheets as a new procedure in packing different products is considered by world industrial community and it is several years that Iran also reached this way. Carton plast sheet has unique characteristics which cause its superiority to cardboard boxes and cartons in packing and attracted different industries attention to it so that, using the carton plast for packing products, they can achieve its advantages. These advantages in packing industry are as follow:

- Light weight
- Strength to chemicals, detergents, acids as well as grease and oil
- Consistent with climate (strength to temperature fluctuations from -20 to +80°C, maintaining internal humidity and temperature, water proof)
- Recyclable completely (100%)
- Strength to the lateral pressures and impact
- Delaying the fire

#### 1.3. Custom fees

Table1. Chips custom fees and tariffs

No.	Description	Tariff code	Fees %
1	From polypropylene polymers, others	39202090	20

#### 1.4. ISIC code

The plant considered is for potato chips production. The ISIC code related to this product is 15252013 in the department of industry, mine and commerce systems in subgroup polymer products and its measurement scale is ton.

Table2. Product ISIC code

ISIC code	Description	Scale
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2520512394	Polypropylene carton sheet	Ton
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### 1.5. Introduction to products application

Carton plast is used in different ad stands, packing industries, building, silage construction, agriculture, refrigeration industry. The highest level of applications is in packing. But, its load carrying is less than the cardboard cartons. Hence, their application is more for the products with fire probability, explosives and light and bulk products and the products are placed in humid places than the cardboard one.

### 2. Suggested sites

Based on surveys, the cities such as Delphan is suitable sited for establishing this unit.

### 3. Raw, auxiliary materials and consumables

The raw materials include polypropylene, master batch and additives.

### 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 eastern neighbors.

Table3. Products production and sales plan

Description	2018	2019	2020	2021	2022
Production capacity	70%	80%	90%	100%	100%
Production level (t)	2041	2333	2624	2916	2916
Sales (m.Rial)	100019	114307	128596	142884	142884

### 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. Nominal production of this product is 450 kg per hour and 32400 ton annually in 300 days.

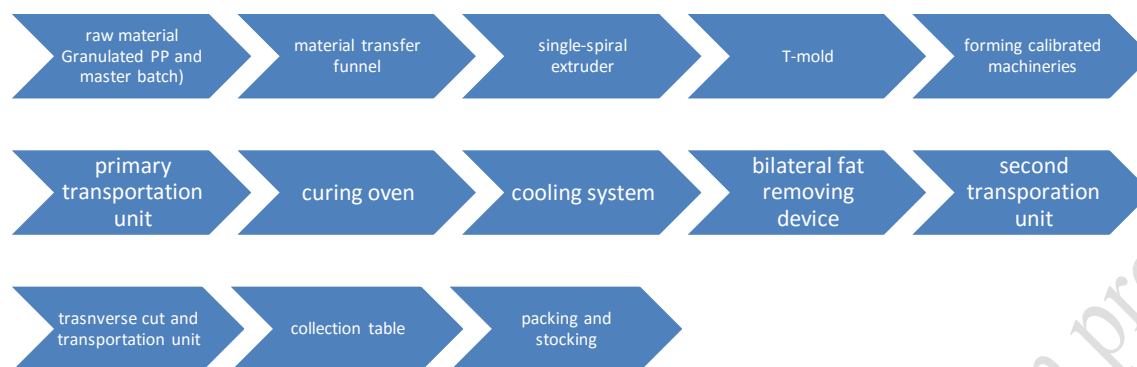
#### 5.2. Practical capacity

The practical capacity is the maximum available capacity in typical situation which is considered as a percentage of the nominal one. Considering that machineries are not capable of 100% production, based on the time for repair, maintains and failure etc. their efficiency is 90% considered. The practical capacity for this unit is 2916 ton annually.

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### 6. Production procedure and technology



### 7. Investment costs

#### 7.1. Fixed investment

Table4. Investment costs

No.	Description	Costs			
		Dollar	Rial	Rial	Total
1	Land	0	0	2000	2000
2	Landscaping	0	0	1783	1783
3	Building construction	0	0	13135	13135
4	Machineries and equipment	250000	8633	1413	10046
5	Branches and installation	0	0	7245	7245
6	Vehicles	0	0	1600	1600
7	Service and official equipment	0	0	310	310
8	Other and unpredicted costs (5% of above costs)	0	0	1806	1806
9	Pre-exploiting costs	0	0	1100	1100
10	Total fixed investment costs	250000	8633	30392	30392
11	Working capital in 100% of capacity	0	0	29582	29582
12	Total investment costs	250000	8633	59920	68553

#### 7.2. Working capital

Table5. Working capital

No.	Description	Day	1 <sup>st</sup> year	Base year
1	Raw and auxiliary materials	30	5574	7962
2	Current and produced products inventory	30	7056	9892
3	Debts	30	7056	9892
4	Cash	30	1372	1783
Total			21058	29528

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8. Production costs

Table6. Production costs

Description	Total costs (m.Rial)
Raw and packing material	95547
Energy	1757
Repair, maintenance and spare parts	1865
Personnel's salary	6010
Unpredicted (6%)	6311
Depreciation	3057
Insurance	65
Sales and official costs	7144
Total operational and non-operational production costs	121754

9. Economic indices

Description	Amount-measurement scale
NPV	9033 m Rial
IRR	26.55%
PBP	5.88 years equal to 2021

## **PROJECT PROFILE – SUMMARY SHEET**

### ***Project Introduction***

1. Project title: Carton Plast production

2. Sector: rubber and polymer products manufacturing  
Sub sector: manufacturing different types of polymer products

3. Products/Services: carton plast sheet production

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

5. Project description:

In order to produce carton, the paper is used which is provided from trees and some agricultural wastes such as wheat, cane stalks and barley. Due to low mechanical features resulted, the wood paste exists in all paper paste producing and it can have said that in a major part of the carton and paper production worldwide, there is wood paste and it plays substantial role. Population growth and productions development caused increasing production of carton plast and due to necessity of wood paste in paper production, there are natural resources destructions in order to make use of the trees. In this regard, in order to reduce the environmental destructions, scientists proposed carton plast as alternative. On the other hand, polymers application like paper in human communities is increasing while; plastic is a no-recyclable material in environment and leaving plastic in environment causes the pollution. In this regard, by introducing the carton plast to the markets, scientists helped maintaining the environment by reduction of trees cutting and waste plastic recycle. Therefore, carton plast is a very important factor in human environmental protection by these roles.

6. Annual capacity: 2916 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	30392	34530	0.88	0.25	0.13
Working Capital	29528	34530	0.86	0	0.86
Total Investment	59920	34530	1.74	0.25	1.99

- Value of foreign equipment/machinery 0.25 million dollar
- Value of local equipment/machinery 0.04 million dollar
- Value of foreign technical know- how 0 million dollar
- Value of local technical knows- how 0 million dollar
- Net Present Value (NPV): 9033 Million Rial for .... Year
- Internal Rate of Return (IRR) 26.55%
- Payback Period (PP) 9.24 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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**Organization for Investment Economic and Technical Assistance of Iran (OIETAI)**  
**Foreign Investment Center of Lorestan Province**  
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