

Form1.

Summary of the plan of establishing polymer wood sheet production

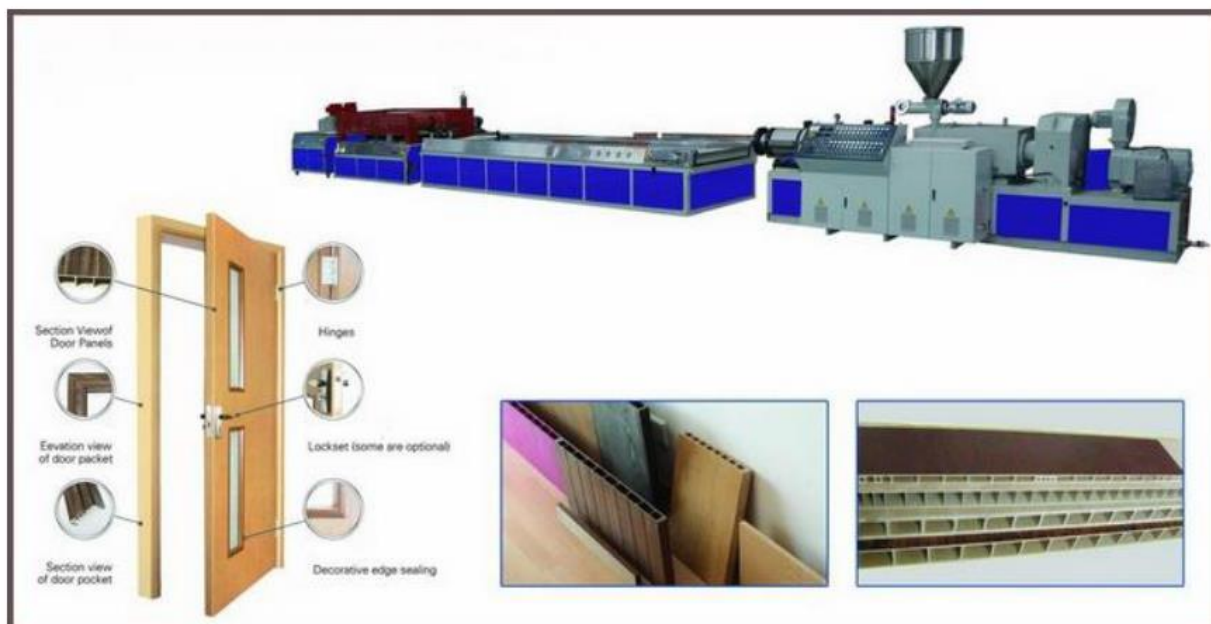
1. Introduction to products or services

1.1. The goal of plan

The main goal of this plan is to establish polymer wood sheet production unit in Lorestan province. This plan will be exploited from 2018 with 37 personnel and 70% of the practical capacity in 3 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

Composite polymer wood which is produced from the polymers such as PP, PR or PVC, is of an appearance similar to the wood and the same properties of the polymer. Due to physical and mechanical similar properties, this product can be used instead of the polymer or wood made products. Therefore, it is vast and diverse in application. Its present application is mostly in construction section. Polymer-wood composites are produced in extrusion procedure and changed to the final form with different molds. These composites are wood products without need for later processing and with strength in different climates, to the humidity and molds. Hence, they are used for the open spaces in which the non-processed timbers are not used. Also, these products have polymer properties that are an environmental and operational advantage. Polymer-wood fiber composites are used indoor and outdoor. The applications in developed countries are in majority of industries. For example, they are used in ceiling tiles, marine waterfront, official furniture, instruments, casts, ceiling timber and so forth.



Form1.

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1.3. Custom fees

Table1. Polymer-wood composite sheets custom fees and tariffs

No.	Description	Tariff code	Fees
1	Timber of the wood chips and similar timbers of other compressed materials with resins or organic glues	44109000	15
2	Other timbers of other compressed materials with resins or glues (non-worked and sanded)	44109010	10
3	Other materials with resins or worked glue materials	44109090	15

1.4. ISIC code

The plant considered is for producing light and heavy leather. The ISIC code related to this product is 2021 in the department of industry, mine and commerce systems called polymer-wood sheet in subgroup of wood and wooden products production, except furniture and its measurement scale is ton.

Table2. Product ISIC code

ISIC code	Description	Scale
2021512342	Polymer-wood raw sheet	Ton

1.5. Introduction to products application

Approximately, all applications of the natural wood are included for the polymer-wood composites; since their physical properties and appearance are similar to natural one. The main application of polymer-wood composites is for door, windows, door frame, wooden railing, desk and chair, floor covering and wall coverage, fencing round the house and stairway.

2. Suggested sites

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

3. Raw, auxiliary materials and consumables

Raw materials include Granulated PVC, wood chips and resin.

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.

Table3. Products production and sales plan

Description	2018	2019	2020	2021
Production capacity	70%	80%	90%	100%

Form1.

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Production level				
Polymer-wood sheet	2100	2400	2700	3000
Sales level				
Total (m.Rial)	73500	84000	94500	105000

5. Annual nominal and practical capacity

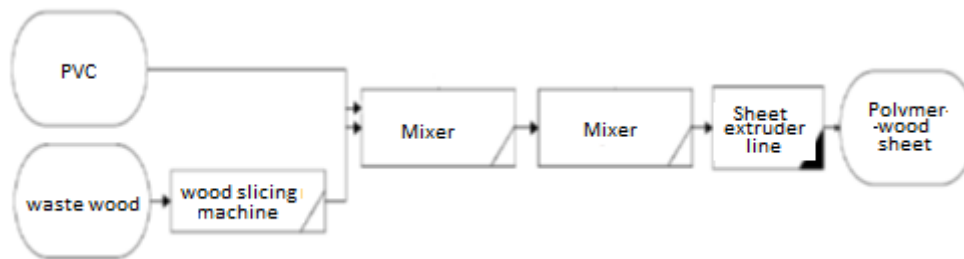
Nominal capacity

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 500 kg per hour and 3600 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 85% considered. The practical capacity for this unit is 3000 ton annually.

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	2500	2500
2	Landscaping	0	0	1500	1500
3	Building construction	0	0	10735	10735
4	Machineries and equipment	451790	13708	2056	15764
5	Branches and installation	0	0	6650	6650
6	Workhouse and laboratory instruments	0	0	1576	1576

Form1.

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7	Vehicles	0	0	800	800
8	Service and official equipment	0	0	305	305
9	Other and unpredicted costs (5% of above costs)	0	0	1992	1992
10	Pre-exploiting costs	0	0	1540	1540
11	Total fixed investment costs	451790	13708	29654	43362
12	Working capital in 100% of capacity	0	0	15859	15859
13	Total investment costs	451790	13708	45513	59221

7.2. Working capital

Table5. Working capital

No.	Description	Day	1 st year	Base year
1	Raw and auxiliary materials	30	2743	3919
2	Current and produced products inventory	30	3904	5332
3	Debts	30	3966	5419
4	Cash	30	987	1190
	Total		11600	15859

8. Production costs

Table6. Production costs

Description	Total costs (m.Rial)
Raw and packing material	47023
Energy	3723
Repair, maintenance and spare parts	1983
Personnel's salary	7560
Unpredicted (6%)	3617
Depreciation	3692
Insurance	72
Sales and official costs	1050
Total operational and non-operational production costs	68720

9. Economic indices

Description	Amount-measurement scale
NPV	4693969 m Rial
IRR	45.15%
PBP	4.23 years equal to 2020

PROJECT PROFILE – SUMMARY SHEET

Project Introduction

1. Project title: establishing polymer wood sheet production

2. Sector : producing wood and cork expect furniture, producing product of reed and mat weaving
Sub sector: producing coated sheets, multilayer sheets, stratified sheets, chipboard and other panels

3. Products/Services: polymer wood sheet production

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

5. Project description:

Composite polymer wood which is produced from the polymers such as PP, PR or PVC, is of an appearance similar to the wood and the same properties of the polymer. Due to physical and mechanical similar propertied, this product can be used instead of the polymer or wood made products. Therefore, it is vast and diverse in application. Its present application is mostly in construction section.

6. Annual capacity: 3000 t

Project Status

7. Local / internal raw material access 100% %

8. Sale : 80% locally

- Anticipated export market 20 %

9. Construction Period 2 Year

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	29654	34530	0.86	0.40	1.26
Working Capital	15859	34530	0.46	0	0.46
Total Investment	45513	34530	1.32	0	1.72

- Value of foreign equipment/machinery 0.4 million dollar
- Value of local equipment/machinery 0.06 million dollar
- Value of foreign technical know- how 0 million dollar
- Value of local technical knows- how 0 million dollar

- Net Present Value (NPV): 46939.69 million Rial for Year
- Internal Rate of Return (IRR) 45.15%
- Payback Period (PP) 4.23 Year (2020)

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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