

Plan: producing HPL and CPL sheets

Introduction to the product:

The main goal of this plan is to establish producing HPL and CPL sheets factory in Lorestan Province. The ISIC code of this product is 2101512369 from paper and paper products group (21) and paper, pulp and cardboard subgroup (2101). HPL and CPL sheets are exported and imported under the tariff 39219020 of Iran Custom regulations entitled high pressure laminated sheets with thickness of more than 1.2 μm and less than 2 mm. The main conditions on their importing is to take the permission from the department of commerce and ministry of industries and mines, paying 5% of the importing fees in 2016 (custom fee is 4% and commercial profit is 1%).

Introducing the product's application:

This product include craft paper stained by resin and patterned paper stained which are pressed on each other under high pressure and constantly and become bony to be pressed on the surface. Dominantly, they are used for cabin boards' production and as the coating due to their high strength against thermal effects and being scratched. Different types of the product's coating are as follow:

Table3. Different types of HPL and CPL coating

Complete name	Abbreviation	Coating type
Continuous Pressure Laminate	CPL	روکش ورقه ای پیوسته
Low Pressure Laminate	LPL	روکش ورقه ای تحت فشار پایین
High Pressure Laminate	HPL	روکش ورقه ای تحت فشار بالا
Standard.General Purpose.Horizontal	HGS	HPL نوع استاندارد
Standard .General Purpose.Vertical	VGS	HPL نوع استاندارد
Standard.Light-duty.Vertical	VLS	HPL نوع استاندارد
Standard.Heavy-duty.Horizontal	HDS	HPL نوع استاندارد
Post Forming ,General Purpose.Horizontal	HGP	HPL نوع فرم پذیر

Complete name	Abbreviation	Coating type
Post Forming .General Purpose.Vertical	VGP	Post formed HPL
Flame - Retardant.General Purpose.Compact	CGF	Flame retardant HPL
Flame - Retardant.General Purpose.Horizontal	HGF	Flame retardant HPL
Retardant-Flame .Heavy-duty.Horizontal	HDF	Flame retardant HPL
Retardant-Flame .Heavy-duty.Vertical	VGF	Flame retardant HPL
Walk print HPL	-	Floor covering HPL
Compact HPL	-	Compact HPL

Plan suggested sites

Based on the advantages of the establishment in industrial parks and zones, the Lorestan province industrial parks are suggested for implementing the plan.

Raw, auxiliary materials and consumables

The main raw materials used for this plan are craft papers, decorative papers, covering papers and resin which are available from importation and local resources.

#	Raw, auxiliary materials and packing	Measurement Unit	Amount/year	Unit Price	Annual Cost mRial
1	KRAFT	m2	1,224,000	5,000	6,120
2	Decorative paper	m3	408,000	12,000	4,896
3	Paper coating overlay	m4	408,000	9,000	3,672
4	Paper coating underlay	m5	408,000	9,000	3,672
5	Phenolic resin	1000kg	61	50,000,000	3,060
6	Melamine resin	1000kg	61	48,000,000	2,938
Total					24,358

Sales plan and target market

The products' sales price is the factory prices as follow. Considering the demand level, the target market is local industries.

#	Description	practical capacity (m ²)	nominal capacity (m ²)	unit price(rial)	Annual Sale(m Rial)
1	HPL Sheet	200,000	180,000	220,000	44,000
2	CPL sheet	200,000	180,000	200,000	40,000
	Total	400,000	360,000		84,000

Annual nominal and practical capacity

Product's annual manufacturing capacity in 3 working shifts, each with 8 working hours daily and 300 days per year is approximately 400000M². Considering unpredicted and unexpected factors of process stop as well as maintaining and repairing processes, the plan practical capacity for this unit is 90% of the nominal one equivalent to 360000m².

Manufacturing procedure and technology

In order to produce the coatings, first the craft and decorative papers are processed respectively and then are transformed to melamine decorative papers and phenolic craft papers. In decorative paper processing, the paper is stained with resin and then it is dried and finally is cooled and cut to certain dimensions. These materials are considered semi-fabricated product in production process. Phenolic craft paper and melamine decorative one as semi-fabricated products are the main raw materials of third phase. In third phase of the production process, certain number of each type of paper is arranged on each other and are undergone the press under high-pressure and thermal process by the devices to form coating.

Investment costs

The fixed investment costs for this plan is 84.49 billion Rials and the working capital is equivalent to 6.24 billion Rials estimated.

Description	Total Cost(m.Rial)	%
Land purchase	2,800	3%
Site preparation and development	881	1%
Civil works, structures and buildings	19,960	22%
Machinery and equipment	51,150	56%
Branches And Installation	3,293	4%
laboratory equipment	500	1%
Vehicles	400	0%
Service equipment	87.00	0%
official equipment	406	0%
Other and unpredicted costs	3,974	4%
Total FIXED ASSETS	83,450.32	92%

pre-production expenditures	1,042.82	1%
TOTAL FIXED INVESTMENT COSTS	84,493.14	93%
Working capital in 100% of capacity	6,240.63	7%
Other assets	0	0%
TOTAL INVESTMENT COSTS	90,733.77	100%

Plan production costs

The annual cost of this plan is 46.7 billion Rials estimated.

#	Description	Total Cost(m.Rial)
1	Raw and packing material	24,358
2	Personnel's salary	7,692
3	Energy	1,152
4	Building and livestock insurance	159
5	Repair, maintenance and spare parts	2,971
6	Marketing and Advertising	1,680
7	Unpredicted	1,901
8	Depreciation	6,786
Total operational and non-operational production costs		46,699

Economic indices

Description	Amount-measurement scale
NPV	59750 m Rial
IRR	36.65%
PBP	2.41 years

PROJECT PROFILE – SUMMARY SHEET

<i>Project Introduction</i>
1. Project title: producing HPL and CPL sheets
2. Sector: paper and paper products Sub sector: paper, pulp and cardboard
3. Products/Services: HPL and CPL sheets
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 this plan is to establish producing HPL and CPL sheets factory in Lorestan Province. This product include craft paper stained by resin and patterned paper stained which are pressed on each other under high pressure and constantly and become bony to be pressed on the surface. Dominantly, they are used for cabin boards' production and as the coating due to their high strength against thermal effects and being scratched.
6. Annual capacity: 400000 m ² /year

<i>Project Status</i>
7. Local / internal raw material access 100 %
8. Sale: 100% locally - Anticipated export market 0 %
9. Construction Period 24 month 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, 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	37993.14	31000	1.23	1.5	2.73
Working Capital	6240.63	R for	0.20	0	0.20
Total Investment	44233.77	each Dollar	1.43	1.5	2.93

- Value of foreign equipment/machinery 1.5 million dollar
- Value of local equipment/machinery million dollar
- Value of foreign technical know- how million dollar
- Value of local technical knows- how million dollar
- Net Present Value (NPV): 59750 Million Rial for 10 Year, discount rate: 20%
- Internal Rate of Return (IRR) 36.65%
- Payback Period (PP) 41.49%

General Information

12. Project Type : Establishment Expansion and completion

13. Company Profile:

- Name (legal /natural persons):
- Company Name:
- Address:
- Tel: Fax:
- E-mail: Web site:
- 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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