

Plan: producing urban plastic parts

Introduction to the product:

The main goal of this plan is to establish a plastic traffic control signs and equipment manufacturing unit in Lorestan Province. These products cover a large spectrum of the urban plastic products which are selected based on the particular demand for a product in market at particular time and produced based on the demand level in market to the particular product and the received orders of the production unit. The main raw material for these products is of polyethylene. The raw materials for urban plastic parts as the main subject of this report are of polyethylene. The ISIC code of the products is 2520412577. The products are classified as rubber and plastic products group (25) and rubber and plastic products subgroup (2520) and they are measured in term of tone. Different types of the plastic parts are exported and imported under the chapters of tariff 3922 of Iran Custom regulations and sub-tariffs 3922900 and 39231000 and 3924900 entitled as plastic materials artifacts. The main conditions on their importing is to take the permission from the department of commerce and ministry of industries and mines, paying 32% of the importing fees in 2016 (custom fee is 4% and commercial profit is 28%).

Plan suggested sites

Based on the advantages of the establishment in industrial parks and zones and availability to the infrastructures required the Lorestan province industrial parks are suggested for implementing the plan.

Raw, auxiliary materials and consumables

The main raw materials are polyethylene which is produced in 9 petrochemical units (Imam Port, Arak. Marun Amir Kabir, Laleh, Aria Sasul, Jam, Tabriz and Mher) with capacity of 3300000 t annually. By planning the exploitation of 15 production units, this capacity would be 7640000 t annually. The consumption and annual costs of the raw materials are as follow.

#	Raw, auxiliary materials and packing	Measureme nt Unit	Amount/ year	Unit Price	Annual Cost mRial
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1	HDPE (Grade era)	1000kg	337	40,000,000	13,464
2	HDPE (grade IV)	1000kg	612	39,500,000	24,174
3	Metal profiles	1000kg	34	27,000,000	909
4	Other essentials	1000kg	34	195,000,000	6,564
Total					45,111

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(t)	nominal capacity (t)	unit price(rial)	Annual Sale(mRial)
1	Urban plastic	1,000	900	85,000,000	85,000
Total		1,000	900		85,000

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 1000 t. 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 900 t.

Manufacturing procedure and technology

In traffic control equipment production process, injecting casting and rotational casting are used. Injecting casting is one of the common plastic parts methods. TV, Monitors, Cd players, eyeglasses, toothbrush, automotive parts exterior body and other parts are produced in this manner. Rotational casting process is one of the plastic forming processes which is used in high temperature and low pressure in form of open casts in order to produce hollow, uniform and free of residues' tension parts. In this process with the least costs, there are complex shapes are produced with lowest wastes. Rotational casting is done under the atmosphere pressure and

materials are melted in the cast instead of being melted and poured into the casts. In this process, the powder casting material is used in order to conduct the suitable heat in casts.

Investment costs

The fixed investment costs for this plan is 41.43 billion Rials and the working capital is equivalent to 3.58 billion Rials estimated.

Description	Total Cost(m.Rial)	%
Land purchase	3,150	7%
Site preparation and development	1,044	2%
Civil works, structures and buildings	21,110	47%
Machinery and equipment	10,630	24%
Branches And Installation	1,619	4%
laboratory equipment	200	0%
Vehicles	400	1%
Service equipment	87.00	0%
official equipment	405	1%
Other and unpredicted costs	1,932	4%
Total FIXED ASSETS	40,576.32	90%
pre-production expenditures	855.85	2%
TOTAL FIXED INVESTMENT COSTS	41,432.17	92%
Working capital in 100% of capacity	3,588.98	8%
Other assets	0	0%
TOTAL IMVESTMENT COSTS	45,021.15	100%

Plan production costs

The annual cost of this plan is 62 billion Rials estimated.

#	Description	Total Cost(m.Rial)
1	Raw and packing material	45,111
2	Personnel's salary	6,872
3	Energy	1,392
4	Building and livestock insurance	73
5	Repair, maintenance and spare parts	1,179
6	Marketing and Advertising	1,700
7	Unpredicted	2,816
8	Depreciation	2,861
Total operational and non-operational production costs		62,003

Economic indices

<i>Description</i>	<i>Amount-measurement scale</i>
<i>NPV</i>	<i>27665 m Rial</i>
<i>IRR</i>	<i>32.75%</i>
<i>PBP</i>	<i>2.86 years</i>

Plan and Budget Organization of Lorestan province

PROJECT PROFILE – SUMMARY SHEET

<i>Project Introduction</i>
1. Project title: producing urban plastic parts
2. Sector: rubber and plastic products Sub sector: rubber and plastic products
3. Products/Services: plastic traffic control equipment
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 a plastic traffic control signs and equipment manufacturing unit in Lorestan Province. These products cover a large spectrum of the urban plastic products which are selected based on the particular demand for a product in market at particular time and produced based on the demand level in market to the particular product and the received orders of the production unit. The main raw material for these products is of polyethylene. The raw materials for urban plastic parts as the main subject of this report are of polyethylene. The ISIC code of the products is 2520412577. The products are classified as rubber and plastic products group (25) and rubber and plastic products subgroup (2520) and they are measured in term of tone.
6. Annual capacity: 1000 t/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:

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	32950.57	31000	1.06	0.273	0.34
Working Capital	3588.98	R for each Dollar	0.12	0	0.12
Total Investment	0.273		1.18	0.273	0.45

- Value of foreign equipment/machinery 0.273 million dollar
- Value of local equipment/machinery 0.07 million dollar
- Value of foreign technical know- how million dollar
- Value of local technical knows- how million dollar

- Net Present Value (NPV): 27655 Million Rial for 10 Year, discount rate: 20%
- Internal Rate of Return (IRR) 32.75%
- Payback Period (PP) 34.9%

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)

Ministry of Economic Affairs and Finance
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(OIETAI)
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