



Dena Tejarat Amir



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# Dena Tejarat Amir

## About Us

Due to the scope of its operations and the application of professional experience in the form of legal entities, Amir Investment Holding, which has been involved in a variety of fields for over ten years, has chosen to create and manage each of its economic endeavors as a separate legal entity. In order to conduct business in this area, it founded a corporation named "Dena Tejarat Amir" and arranged all of its business dealings under its auspices. Prior to focusing this holding's operations on a variety of industries, particularly the steel sector, the managers of Dena Tejarat established a successful firm.

## Specific Domains of Activity in The Trade Company

Everyone is aware of the steel industry's stability and its promising future over the coming decades. There are many areas for action in this field, and using these potential talents—along with other projects of this holding—will undoubtedly be regarded as an effective step in the country's advancement, in addition to having the ability to yield economic benefits.

The company's founders and leadership have experience and strong relationships in a number of specialized areas related to the steel industry, construction equipment business, and particularly steel product exports. Therefore, based on the outcomes of a previous performance evaluation, the managers of the company have decided to prioritize and seek professional advice before entering the steel industry. As a result, this corporation has set the conversion and ultimate direction of upstream chain products to downstream sectors as a medium- and long-term goal, while trading in various circles of this industry.

## Company Activities

Dena Tejarat Amir Company, which owns the commercial sector of Amir Holding, was registered in 2020. Using the decade-long experience of the managers of this company, it provides all commercial activities and commercial services in the field of buying and selling, exporting and importing, and after-sales services for all authorized commercial goods, opening credits and LCs for the company in banks, clearing goods from domestic customs, obtaining and granting accredited foreign and domestic agencies, and participating in all government and private tenders, contracts, and auctions, both domestic and international.



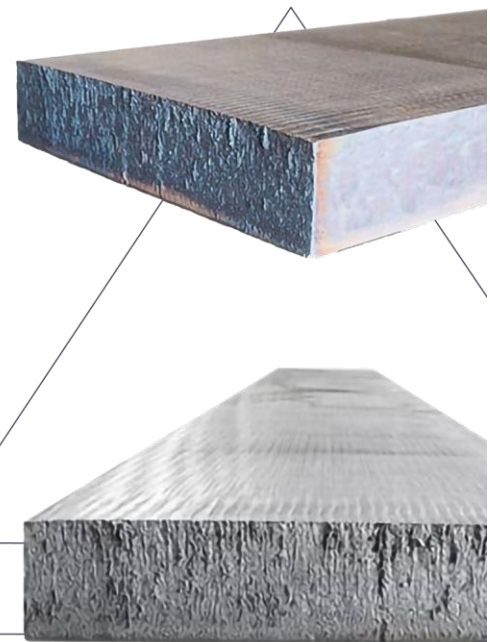


## Slab

A slab is a rectangular shape, 1.25 meters wide, 12 meters long, and 230 millimeters thick. It is usually produced directly by continuous casting or indirectly by hot rolling other types of steel ingots. The thickness of the slab is very small to the point that it may cause problems when cutting, for which purpose advanced machines with high capabilities must be used.

## Applications of Slab

Slabs are used in the production of flat steel products such as sheets, plates, coils, and also in heavy machinery.  
Partner Companies: Khuzestan Steel Company





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## Sponge Iron

Sponge iron or porous pellets are obtained from the direct reduction of iron ore pellets and have a high grade, ranging from 34 to 95 percent. The direct reduction process of iron ore removes the oxygen present in the iron ore and turns the rock into a porous, sponge-like structure, which is why it is called sponge iron. It is usually produced in lump or pellet form and is also produced in compressed and briquetted form, which is called hot briquetted iron (HBI).

## Applications of sponge iron

Sponge iron has many uses, the most important of which is as a substitute for scrap iron in induction furnaces, which are used to produce ingots and other steel products. So that in these furnaces, up to 50% of sponge iron can be used instead of waste.

Partner companies: Baft Steel Restoration Company, South Hormozgan Steel Company, Sabzevar Pars Steel Company, Mianeh Steel Company



### Analysis of sponge iron from Baft Steel Company, Baft, Kerman

Component	Production Range
<i>Fe (total)</i>	86.5-87.5%
<i>Fe (Metal)</i>	79.5%-80.5%
<i>Metallization</i>	91-92%
<i>P</i>	0.08-0.12
<i>CaO</i>	1.5%
<i>MgO</i>	1.64%
<i>Al<sub>2</sub>O<sub>3</sub></i>	0.73%
<i>SiO<sub>2</sub></i>	Max 4.2
<i>C</i>	>1.8
<i>S</i>	<0.01
<i>Size+16mm-6.3mm</i>	5%
<i>Distribution 6.3-16mm</i>	Min 95



## Concentrate

Iron concentrate is a valuable product obtained from iron ore through a process. In order to convert iron ore into steel, it must first be converted into iron concentrate or pellets. Iron concentrate is in powder form and black in color and is used in the iron smelting industry to produce various types of iron pellets, sponge iron or other steel products. Concentrate plays an important role in industrial production in terms of saving time and cost because it is free from harmful and environmentally damaging substances.

## Applications of Concentrate

The most common use of concentrate is in the steel industry. In this method, impure elements are separated from iron ore and a pure product is obtained that is used in various industries, including the following:

- Pellet production
- Pellet making: Making furnace pellets
- Briquettes

Currently, iron concentrate production is one of the most important needs of industrialized countries.

Partner companies: Chadormaloo Mining and Industrial Company, Golgohar Mining and Industrial Company, Sangan Opal Parsian Company

### Analysis of Golgohar Concentrate

Analysis %		
Ave	66.50	Fe
Min	24	FeO
Max	28	
Max	0.05	P
Max	1.0	S
Max	3.0	SiO <sub>2</sub>
Max	0.5	Al <sub>2</sub> O <sub>3</sub>
Max	0.9	CaO
Max	2.5	MgO
Max	6.5	Moisture
Description		
Ave	80%	Size % <0.40 mm
Ave	98%	Size % <3 mm





## Pellet

Pelleting is a method of converting fine and soft raw materials (concentrates) into a dense mass. Pellets are the final product of the pelletizing process and the raw material for the processes of producing pig iron in a blast furnace and producing sponge iron by various direct reduction methods. In common parlance, pellets are pellets produced from iron ore and other additives that are first raw and then hardened or baked and are used for reduction by the traditional method of producing iron in a blast furnace (using blast furnace pellets) or by various direct reduction methods (using direct reduction pellets).

Pellet Making Methods

## In general, pellets are made in two main ways:

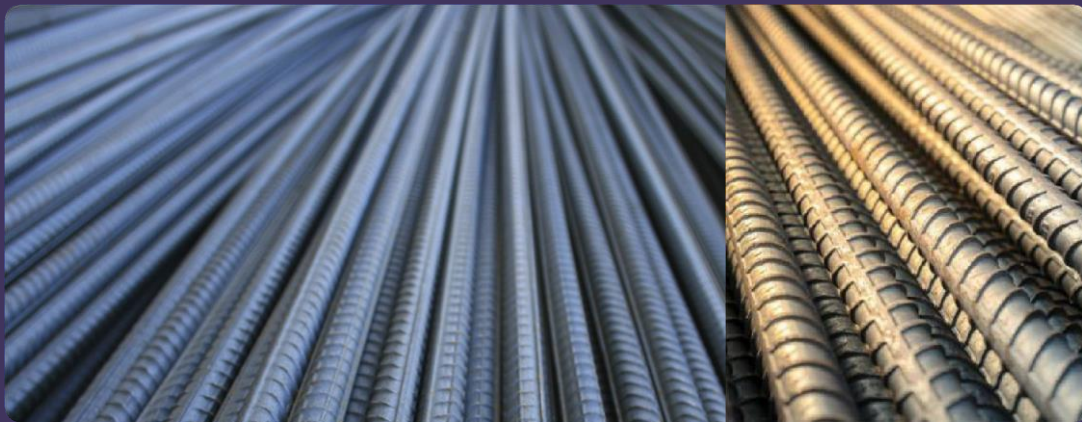
- Conical (rotating cylinder)
- Disc

The main material in making iron ore pellets is iron ore, and the particle size of the concentrate used must be less than 45 microns. In its manufacture, additives and adhesives such as bentonite, lime milk, organic materials, lime, cement and water are also used.

Partner companies: Sirjan Iranian Steel Company, Golgohar Mining and Industrial Company, Goharzamin Iron Ore Company, Chadormalo Mining and Industrial Company, Zarand Iranian Steel Company

Technical Analysis of Golgohar Pellets

Min 65%	Fe (Total)
Max 1%	Fe (O)
Max 4%	SiO <sub>2</sub>
Max 0.7%	CaO
0.07%	AL <sub>2</sub> O <sub>3</sub>
Max 0.05%	P
Max 0.8%	S
Min 250 Kg/Pellet	CCS
19%-24%	Porosity
Min 95%	Tumble Index
Max 4%	Abrasion Index
<16mm Max4%<9-16mm Min 90% 9mm Max6%	Size
0.4%	MgO



## Rebar

Rebar is a steel profile used in construction that is produced with a circular and round cross-section. Of course, there are other types of rebar, which differ in material and application. However, generally, rebars are used in the construction industry. This profile is produced in different thicknesses and diameters, each of which has a specific application.

## Rebar Types

In general, rebars are divided into two categories: ribbed and plain, and in the general category, they can be divided as follows:

- European rebar (carbon, manganese, silicon, alloy, etc.)
- Carbon steel (black base rebar)
- Epoxy coated
- Fiberglass polymer and stainless
- Galvanized

Partner companies in the field of rebar: Bonab Steel Industry Complex, Sarmad Sirjan Iranian Steel Company

### Chemical Analysis

Type	%C		%Si		%Mn		%P	%S	%Cr	%Ni	%Cu
	Min	Max	Min	Max	Min	Max	Max	Max	Max	Max	Max
St 5 SP	0.28	0.37	0.15	0.30	0.50	0.80	0.040	0.050	0.30	0.30	0.30

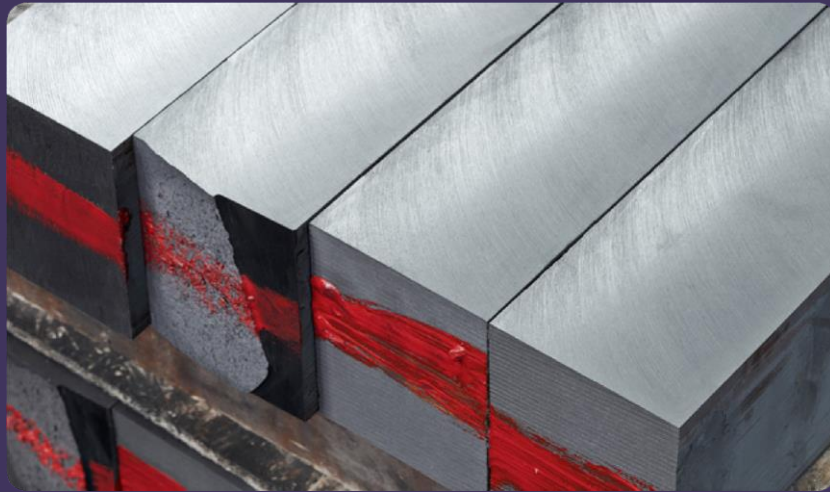
### Mechanical Properties

Type	Min	Min	Min
Standard	Yield stress	Tensile strength	Elongation
ISIRI 3132	(N/mm <sup>2</sup> )	(N/mm <sup>2</sup> )	(%)
AJ 340	340	500	15
AJ 400	400	600	12
AJ 500	500	650	8

### Sarmad Rebar Analysis

Classification	Symbol	Carbon	Silicon	Manganese	Phosphorus	Sulfur	Nitrogen
Plain rebar	240 simple rebar	0/22	0/55	0/75	0/05	0/05	
Spiral ribbed rebar	340 ribbed rebar	0/32	0/6	1/3	0/045	0/045	
Spiral ribbed rebar	350 ribbed rebar	0/27	0/55	1/6	0/04	0/04	0/012
Gable ribbed rebar	400 ribbed rebar	0/37	0/6	1/6	0/045	0/045	
Gable ribbed rebar	420 ribbed rebar	0/3	0/55	1/5	0/04	0/04	0/012
Compound ribbed rebar	500 ribbed rebar	0/4	0/6	1/8	0/045	0/045	
Compound ribbed rebar	520 ribbed rebar	0/32	0/55	1/8	0/04	0/04	





## Billet

A billet is a type of steel ingot that is long and has a square or circular cross-section. The width of the billet is 15 cm and its cross-section is 230 cm. It is usually used to produce sections such as rebar and various types of wire. Billet production is done by direct casting, extrusion or by rolling. Billets are produced in different grades such as 3SP and 5SP. 5SP billet is usually used for rebar production and 3SP grade is used for beam and angle production.

