



**SIMURGH INDUSTRIAL
AND MINING COMPLEX**

➤ Fine & Lump Iron ores

1. Magnetite Iron Ore
2. Hematite Iron Ore

Product	Purity	Inventory
Iron ore	% 48 Fe	CONTACT US
Iron ore	% 52 Fe	CONTACT US
Iron ore	% 54 Fe	CONTACT US
Iron ore	% 56-57 Fe	CONTACT US
Iron ore	% 58 Fe	CONTACT US
Iron ore	% 60 Fe	CONTACT US
Iron ore	% 62 Fe	CONTACT US



➤ Iron Ore Concentrate

- Iron ore Concentrate % 67 Fe

Element		Result
Fe	%	67=<
Fe ₂ O ₃	%	-
FeO	%	28=<
S	%	<0.05
P	%	<0.08
CaO	%	<1
K ₂ O	%	-
MgO	%	-
Na ₂ o	%	-
Al ₂ O ₃ +SiO ₂	%	<4.2
TiO ₂	%	-
L.O.I	%	-
SG	Cm ² /gr	1600<



➤ Iron Ore Pellets

Element	Result	Remark
T.Fe	65%	Min
FeO	1%	Max
Al ₂ O ₃ +SiO ₂	5%	Max
P	0.01%	Max
s	0.01%	Ave
Moisture	1%	Max
CCS	270kg/pellet	Min
T index	96%	Min
A Index	2%	Max
Prosity	20-24%	-
Size 6.3 – 16 mm	90%	Min
Size +16 mm	8%	Max
Size<6.3 mm	2%	Max

The by-product of this line, "Iron Ore Pellet fines", is also offered.



➤ DRI Sponge Iron

DRI Sponge iron	
Fe Total (%)	Min88<total< 92 Max
Fe Metal (%)	82< Metal< 84
MD (%)	Min 91< MD< 93 Max
C(%)	1.5 Min
SiO ₂ (%)	4 Max
Al ₂ O ₃ (%)	0.5 Max
S (%)	0.008 Max
P (%)	0.05 Max
Sizing	9-18 mm, 90% 6.3-9 mm, 5%

The by-product of this line, "DRI Sponge Iron fines & sludge", is also offered.



➤ **Briquetted Iron**

1) Hot briquetted iron (HBI)

Hot briquetted iron	
Total Fe	88-89%
Metallic Fe	81-82%
Metallization	91-92%
Carbon	0.95% (+-0.1%)
Sulphur	0.007% (+-0.001%)

Hot briquetted iron	
Weight	850 gr
Size	145*55*35

The by-product of this line, "Dampened sponge iron", is also offered.



➤ Briquetted Iron

2) Cold briquetted iron (CBI)

Grade 1	
Detail	Item
88-90 %	Fe _{total}
78-80 %	Fe _{matal}
90 %	Metallization
1.5 %	Carbon
0.03% max	Phosphorous (P)
0.04 % max	Sulphur (S)
8.5 % max (MgO is adjustable due to customer demand)	Total gangue (CaO+MgO+Al ₂ O ₃ +...)
3.7-4	Apparent density (tons/m ³)
25-45-35	Size (mm)
4 % max	Under size at loading port
450-500	Compressive strength (kg/piece)
3.9	Density



➤ Steel billet

Steel billet/ 1	<p>Our ordinary grades are:</p> <p>ASTM A615 Gr60</p> <p>ASTM A572GR50</p> <p>BS 4449 B500B CK 45</p> <p>RSt 37-2</p> <p>St 3sp St 3sp St 44-2</p> <p>St 5sp 2</p> <p>ISIRI 3132 Aj 400</p> <p>Analysis of grades are according to customer needs and negotiable. Other Grades are negotiable.</p>
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Dimension & Tolerances

Length (mm)	Cross section (mm)
8000-12000 (+/- 100mm)	130×130 (+/-4mm)
150×150 (+/- 5mm)	

Other size and tolerances are negotiable.



➤ Steel billet

Steel billet/ 2	<p>Our ordinary grades are:</p> <p>ASTM A615 Gr60</p> <p>ASTM A572GR50</p> <p>BS 4449 B500B CK 45</p> <p>RSt 37-2</p> <p>St 3sp St 3sp St 44-2</p> <p>St 5sp 2</p> <p>ISIRI 3132 Aj 400</p> <p>Analysis of grades are according to customer needs and negotiable. Other Grades are negotiable.</p>
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Dimension & Tolerances

Length (mm)	Cross section (mm)
8000-12000 (+/- 100mm)	130×130 (+/-4mm)
150×150 (+/- 5mm)	

Other size and tolerances are negotiable.



➤ Steel Slab

Steel Slab	<p>Our ordinary grades are:</p> <p>G3101 SS 400</p> <p>G3106 SM 400A SAE 1008</p> <p>St 37-2</p> <p>St 44-3</p> <p>St 52-3</p> <p>GI Structural Steel For Hull Construction</p> <p>Analysis of grades are according to customer needs and negotiable. Other Grades are negotiable.</p>
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Dimension & Tolerances

Length (mm)	Width (mm)	Thickness (mm)
3800-10500 ± 100	1000-1250 ± 10	195 ± 5
		245 ± 5

Other size and tolerances are negotiable.



➤ Steel Rebar

- Dimensions and weight rebar

Nominal diameter	Foundation diameter/type 1 /size 340-400	Diameter tolerance	Weigh one meter	Weight tolerance		considerations
				ribbed bars	round bars	
8	7.5	+0.3 -0.5	0.395	+7	+8	<p>In the calculation of the weight, the specific mass of the steel is $7.85 * 10^{-3} \text{ gr / mm}^2$.</p> <p>In round bars: The difference between minimum and maximum diameter (ellipse) is 70% in the range of tolerance.</p>
10	9.3		0.616	+5	+6	
12	11		0.88			
14	13		1.21			
16	15		1.58			
18	17		2			
20	19		2.47			
22	21	+0.4 -0.5	2.98	+4	+4	
25	24		3.85			
28	26.5	+0.4 -0.7	4.83			
32	30.5		6.31			
36	34.5		7.99			



➤ Steel Rebar

- The chemical composition of bars

Classification	Character mark	Percentage of chemical composition of the elements (maximum values)						Maximum carbon equivalent
		C	Si	Mn	P	S	N	
round steel bars	240	0.24	0.6	0.81	0.055	0.055	-	-
Type 1 / ribbed steel bars	340	0.35	0.65	1.36	0.050	0.050	-	0.50
	350	0.3	0.6	1.66	0.045	0.045	0.014	0.51
Type 2 / ribbed steel bars	400	0.4	0.65	1.66	0.050	0.050	-	-
	420	0.33	0.60	1.56	0.045	0.045	0.014	0.56
Compound ribbed steel bars	500	0.43	0.65	1.88	0.050	0.050	-	-
	520	0.35	0.6	1.88	0.045	0.045	0.014	0.61



➤ Steel Rebar

- Mechanical properties of bars

Classification	Ch. mark	Tensile test					Cold bending test		
		yield strength Y.P N/mm ²		U.T.S N/mm ²	Tensile /yield R _m /R _{ch}	Minimum elongation	Diameter of bending mandrel relative to nominal diameter of rebar		
		Minimum	Maximum	Minimum	Minimum	Minimum	Minimum		
						d<=16	16<d<=32	32<d<=50	
round bars	240	240	-	360	1.25	25	3d	6d	7d
Type 1 / ribbed steel bars	340	340	-	500		18			
	350	350	455	500		17			
Type 2 / ribbed steel bars	400	400	-	600		16			
	420	420	545	600		16			
Compound ribbed steel bars	500	500	-	650		10			
	520	520	675	690		13			

Classification	Ch. mark	Equivalent standards		
		GOST 5781	ASTMA 615	JIS G3112
round steel bars	240	AI	-	SR 24
Type 1 / ribbed steel bars	340	AII	G40	SD 35
Type 2 / ribbed steel bars	400	AIII	G60	SD 40
Compound ribbed steel bars	500	-	G75	SD 50



➤ Iron mill scale

Fe total	74.44	%H	0.2
FeO	58.93		



Capacity and facilities

Products		Time period	Capacity and facilities
Iron Ore	Magnetite	Per each year	-
	Hematite	Per each year	-
Iron ore concentrate		Per each month	-
Iron ore pellets		Per each month	8 Million Tones
DRI Sponge iron		Per each month	8 Million Tones
Briquetted iron	CBI	Per each month	5,000 Tones
	HBI	Per each Years	1.2 Million Tones
Steel billet	1	Per each Years	5.2 Million Tones
	2	Per each Years	3 Million Tones
Steel slab		Per each Years	5.2 Million Tones
Steel bar	Round steel bars	Per each Years	720,000 Tones
	Ribbed Steel Bars	Per each Years	720,000 Tones
	Compound Ribbed Steel Bars	Per each Years	720,000 Tones



Communication with us

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