



الجزائرية القطرية للصلب
ALGERIAN QATARI STEEL

DRI

Physical Dimention

Charac- teristics	Over Size (+18mm)	Average Size (6.30-18mm)	Under Size (-0.6-3mm)	Bulk Density (t/m³)
Max (%)	5.0	-	5	1.90
Min (%)	-	90.0	-	1.60
Target	-	99.0	<1	-

Chemical composition of Product

Element	T.Fe%	M.Fe%	Metn%	C%	S%	P%	Gangue	Others (MnO+K2O+Na2O+TiO2)
Min (%)	89.50	84.20	94.00	1.50	-	-	3.5	-
Max (%)	-	-	-	2.50	0.01	-	4.5	0.5
Target	-	-	95.00	2.00	<0.01	<0.05	4	-

Other Definition	Physical Appearance	Form: Pellets Colors: Gray
Gangue= $\text{SiO}_2 + \text{MgO} + \text{CaO} + \text{Al}_2\text{O}_3$ Basicity B2= $\text{CaO} / \text{SiO}_2$ Basicity B4= $\text{CaO} + \text{MgO} / \text{SiO}_2 + \text{Al}_2\text{O}_3$	 	
Chemical Behavior	Strongly Metalization can be Reoxidized on Exothermic Reaction with water.	

Production Process

The production of reduced iron involves reduction of iron oxide at 900 - 1000 oC to release Oxygen and obtain the derivative of T.Fe ($\text{Fe}_2\text{O}_3 + \text{H}_2 \rightarrow \text{Fe} + \text{H}_2\text{O}$) / ($\text{Fe}_2\text{O}_3 + \text{CO} \rightarrow \text{Fe} + \text{CO}_2$). On leaving the furnace, Transferred to silos of passivation, and stored in spicific area away from humidity.

Use of Reduced Iron

The direct reduced iron is a major metallic feedstock to the electrical arc furnace in the steel making industry, in different application of this last as follows.

- Flat steel Making.
- Commercial long product steel making.
- Special Steel Making.