DRI (A) Technical Profile COMSIGUA

CORPORACION VENEZOLANA DE GUAYANA

COMSIGUA

REDUCTION PROCESS

Midrex is an iron making process, developed for the production of direct reduced iron (DRI). It is a gas-based shaft furnace process is a solid state reduction process which reduces iron ore pellets or lump ore into DRI without their melting using reducing gas generally formed from natural gas.

PRODUCT SPECIFICATIONS

Características Químicas (Chemical Characteristics)

Descripción (Description)	Unidad (Unit)	Especificación (Specification)
Fe Total (ISO 2597/Covenin 1237)	%	90,00 min.
Fe Metallic (ISO 16878)	%	85,00 min.
Carbón (Carbon) (ISO 9686)	%	0,80 min.
Azufre (Sulfur) (ISO 9686)	%	0,010 max.
Fósforo (Phosphorus) (ISO 4687/Covenin 1686)	%	0,135 max.
Ganga (Gangue) (SiO_2+Al_2O_3+CaO+MgO)	%	6,65 max.

Características Físicas (Physical Characteristics)

Descripción (Description)	Unidad (Unit)	Especificación (Specification)
Densidad a Granel (Bulk Density)	gr/cm^3	2,50 - 2,80
Densidad Aparente (Apparent Density)	gr/cm^3	5,00 min.
Tamaño Nominal (Nominal DRI (A) Size)	mm	110 x 50 x 30 (Piezas rotas son aceptables) (Broken Pieces are acceptables)
Distribución Granulométrica (Size Distribution) < 6,35 mm	%	5,00 max.

Hot Briquetted Iron (HBI)

HBI is the preferred DRI product for the merchant metallics market because it is much denser than CDRI, which reduces the reoxidation rate. This enables HBI to be stored and transported without special precautions under the International Maritime Organization (IMO) code for shipping solid bulk cargoes. It can be used in the EAF, BF, and BOF. HBI is made by compressing DRI discharged from the MIDREX® Shaft Furnace at ≥ 650° C into pillow-shaped briquettes witha typical size of 30 x 50 x 110 mm and a density ≥ 5 gm/cc. No binder is used to make HBI.

DRI (A)
COMSIGUA PROCESS FLOW