Quality characteristics of BF and DR pellets (example)

BF pellets quality parameters

No.	Quality Parameters	Unit	Standart name	Parameters
Chemical properties				
1	Iron content (Fe_{tot})	%	ISO 2597-2	min 65.0
2	Iron oxide content (FeO)	%	ISO 9035	max 1.2
3	Sulfur content, S	%	ISO 4689-2	max 0.01
4	Phosphorus content, P	%	ISO 4687	max 0.008
5	Content (SiO_2+Al_2O_3)	%	ISO 2598/ISO11535	max 5.5
6	Content (K_2O+Na_2O)	%	ISO 13312	max 0.15
7	Basicity B2 (CaO/SiO_2)	unit		0.12
Physical properties				
8	Cold Compressive strength, CCS	kg/p	ISO 4700	min 250
9	Contents of class 9-16mm	%	ISO 4701	min 94.0
10	Contents of class -6.3mm	%	ISO 4701	max 1.5
11	Tumbler index, TI+6.3mm	%	ISO 3271	min 94.0
12	Abrasion index, AI-0.5mm	%	ISO 3271	max 4.0
13	Porosity	%	ISO 15901	min 20
Metallurgical properties				
14	Free swelling index, FSI	%	ISO 4698	max 20
15	Low temperature disintegration, LTD+6.3mm	%	ISO 13930	min 80
16	Determination of low-temperature reduction-disintegration indices by static method, RDI-2.8mm	%	ISO 4696-2	max 5.0
17	Determination of low-temperature reduction-disintegration indices by static method, RDI-0.5mm	%	ISO 4696-1	max 5.0
18	Final stage of reduction (Reducibility)	%	ISO 7215	min 90

DR pellets quality parameters

No.	Quality Parameters	Unit	Standart name	Parameters
Chemical properties				
1	Iron content (Fe_{tot})	%	ISO 2597-2	min 67.0
2	Iron oxide content (FeO)	%	ISO 9035	max 0.5
3	Sulfur content, S	%	ISO 4689-2	max 0.005
4	Phosphorus content, P	%	ISO 4687	max 0.005
5	Content (SiO_2+Al_2O_3)	%	ISO 2598/ISO11535	max 2.0
6	Content (K_2O+Na_2O)	%	ISO 13312	max 0.1
7	Basicity B2 (CaO/SiO_2)	unit		0.12
Physical properties				
8	Cold Compressive strength, CCS	kg/p	ISO 4700	min 275
9	Contents of class 9-16mm	%	ISO 4701	min 94.0
10	Contents of class -6.3mm	%	ISO 4701	max 1.0
11	Tumbler index, $TI_{+6.3mm}$	%	ISO 3271	min 95.0
12	Abrasion index, $AI_{-0.5mm}$	%	ISO 3271	max 3.0
13	Porosity	%	ISO 15901	min 20
Metallurgical properties				
14	Metallization degree, M	%	ISO 11257	min 95.0
15	Reduction-disintegration index, $RDI_{DR-3.15mm}$	%	ISO 11257	max 1.5
16	Degree of reduction, RI	%	ISO 11258	min 95.0
17	Clasterisation index, CI	%	ISO 11256	max 5.0
18	Time of reduction	min	ISO 11256	max 180