SLOVENSKI STANDARD
SIST ISO 3082:2000/DAM 1:2001

01-junij-2001

Železove rude - Vzorčenje in postopki za pripravo vzorcev - Dopolnilo 1

ISO 3082:1998/DAmd 1

Ta slovenski standard je istoveten z: **ISO 3082:1998/DAmd 1**

ICS:

73.060.10 Železove rude Iron ores

SIST ISO 3082:2000/DAM 1:2001 **en**

DRAFT AMENDMENT ISO 3082:1998/DAM 1

ISO/TC **102**/SC **1** Secretariat: **JISC**

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Iron ores — Sampling and sample preparation procedures

AMENDMENT 1

Minerais de fer — Procédures d'échantillonnage et de préparation des échantillons

AMENDEMENT 1

ICS 73.060.10

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Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

Foreword

Boilerplate text for ISO standards:

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Amendment 1 to International Standard ISO 3082: 1998 was prepared by Technical Committee ISO/TC 102, Iron ore and direct reduced iron, Subcommittee SC 1, Sampling.

Iron ores — Sampling and sample preparation procedures

AMENDMENT 1

Amendment to tables and text

Page 8, **Table 1 — Overall precision, β_{SPM} (values as absolute percentages)**

Replace table 1 with the following.

Quality characteristics		Approximate overall precision (β_{SPM})								
		Mass of lot (t)								
		Over 270 000	210 000 to 270 000	150 000 to 210 000	100 000 to 150 000	70 000 to 100 000	45 000 to 70 000	30 000 to 45 000	15 000 to 30 000	Less than 15 000
Iron content		0,34	0,35	0,37	0,38	0,40	0,42	0,45	0,49	0,55
Silica content		0,34	0,35	0,37	0,38	0,40	0,42	0,45	0,49	0,55
Alumina content		0,11	0,12	0,12	0,13	0,14	0,15	0,16	0,18	0,20
Phosphorus content		0,0034	0,0035	0,0036	0,0037	0,0038	0,0040	0,0042	0,0045	0,0048
Moisture content		0,34	0,35	0,37	0,38	0,40	0,42	0,45	0,49	0,55
Size –200 mm ore	-10 mm fraction mean 20%	3,4	3,5	3,6	3,7	**3,9**	4,0	**4,2**	**4,4**	5,0
Size -50 mm ore										
Size -31,5+6,3 mm ore	-6,3 mm fraction mean 10%	1,7	1,75	1,8	1,85	**1,95**	2,0	2,1	**2,2**	2,5
Size – sinter feed	+6,3 mm fraction mean 10%									
Size – pellet feed	-45 µm fraction mean 70%									
Size – pellets	-6,3 mm fraction mean 5%	**0,68**	**0,70**	**0,72**	**0,74**	**0,78**	**0,80**	**0,84**	**0,88**	**1,00**

NOTE — The values of β_{SPM} for silica, alumina and phosphorus content are indicative and subject to confirmation through international testwork.

Page 7, **Clause 5.2 Overall precision**

Replace the first paragraph with the following.

This International Standard is designed to attain the overall precision, β_{SPM}, at a probability level of 95%, given in table 1 for total iron, silica, alumina, phosphorus, and moisture contents and the percent size fraction of the lot. Higher precision may be adopted if required. The precision shall be determined in accordance with ISO 3085.

Page 10, **Table 2 — Classification of quality variation σ_w (values as absolute percentages)**

Replace table 2 with the following.

Quality characteristics		Classification of quality variation (σ_W)		
		Large	Medium	Small
Iron content		$\sigma_W \geq 2,0$	$2,0 > \sigma_W \geq 1,5$	$\sigma_W < 1,5$
Silica content		$\sigma_W \geq 2,0$	$2,0 > \sigma_W \geq 1,5$	$\sigma_W < 1,5$
Alumina content		$\sigma_W \geq 0,6$	$0,6 > \sigma_W \geq 0,4$	$\sigma_W < 0,4$
Phosphorus content		$\sigma_W \geq 0,015$	$0,015 > \sigma_W \geq 0,011$	$\sigma_W < 0,011$
Moisture content		$\sigma_W \geq 2,0$	$2,0 > \sigma_W \geq 1,5$	$\sigma_W < 1,5$
Size of -200 mm ore	-10 mm fraction mean 20%	$\sigma_W \geq 10$	$10 > \sigma_W \geq 7,5$	$\sigma_W < 7,5$
Size of -50 mm ore				
Size of -31,5+6,3 mm ore	-6,3 mm fraction mean 10%	$\sigma_W \geq 5$	$5 > \sigma_W \geq 3,75$	$\sigma_W < 3,75$
Size of sinter feed	+6,3 mm fraction mean 10%			
Size of pellet feed	-45 µm fraction mean 70%	$\sigma_W \geq 3$	$3 > \sigma_W \geq 2,25$	$\sigma_W < 2,25$
Size of pellets	-6,3 mm fraction mean 5%			

Page 11, **Table 3 — Example of minimum number of increments required, n_1, for desired sampling precision, β_S**

Replace table 3 with the following.

Mass of lot (1000 t)		Sampling precision (β_S)						Number of primary increments (n_1)		
Over	Up to	Fe, SiO_2 or Moisture Content	Al_2O_3 content	P content	-200 mm or -50 mm ores, -10 mm fraction	31,5 mm ores, +6,3 mm fraction Sinter feed, +6,3 mm fraction	Pellet feed, -45 µm fraction Pellets, -6,3 mm fraction	Quality variation Large (L), Medium (M) or Small (S)		
								L	M	S
270		0,31	0,09	0,0023	1,55	0,77	0,47	260	130	65
210	270	0,32	0,09	0,0024	1,61	0,80	0,48	240	120	60
150	210	0,34	0,10	0,0025	1,69	0,84	0,51	220	110	55
100	150	0,35	0,10	0,0026	1,77	0,88	0,53	200	100	50
70	100	0,37	0,11	0,0027	1,86	0,92	0,56	180	90	45
45	70	0,39	0,11	0,0029	1,98	0,98	0,59	160	80	40
30	45	0,42	0,12	0,0031	2,11	1,05	0,63	140	70	35
15	30	0,45	0,13	0,0034	2,28	1,13	0,68	120	60	30
0	15	0,50	0,14	0,0037	2,50	1,24	0,75	100	50	25

NOTE — The values of n_1 may be increased or decreased to alter the sampling precision. For example, if the number of increments is $2n_1$, then β_S will be improved by a factor of $1/\sqrt{2} = 0,71$; and if it is $n_1/2$, then β_S will be worsened by a factor of $\sqrt{2} = 1,4$.

Page 37, **Table 5 — Examples of minimum mass of divided gross sample for size determination using other mechanical division methods (e.g. a mechanically charged riffle divider)**

Amend the headings for Pellet feed to read:

Typical specification size fraction	-45 µm
Average percentage of the size fraction (%)	70

Page 38, **Clause 10.3.2.3.1 Division of gross sample**

Replace the last papragraph with the following.

Examples of minimum divided gross sample masses given by equation (22) for division standard deviations of 0,1 and 0,05% Fe and typical nominal top sizes are provided in table 6. The standard deviation of division σ_D applies to each sample division stage, and the variances are additive for the sample division scheme selected.

Page 38, **Clause 10.3.2.3.2 Division of individual increments or partial samples**

Replace the title with the above and the clause with the following.

When increments or partial samples are divided, the division shall be carried out ensuring that the mass of the gross sample for the lot obtained by combining divided increments or partial samples, shall not be less than the minimum gross sample mass given by equation (22) or table 6. The standard deviation of division σ_D applies to each sample division stage, and the variances are additive for the sample division scheme selected.

Page 39, **Table 6 — Examples of minimum mass of divided gross sample for moisture determination and/or chemical analysis**

Replace table 6 with the following.

Nominal top size (mm)	**Minimum mass of divided gross sample** (kg)	
	σ_D = 0,1% Fe	**σ_D = 0,05% Fe**
40	325	1 300
31,5	180	710
22,4	75	300
10	10	40
6,3	3,2	13
2,8	0,5	1,7
1,4	0,5	0,5
0,500	0,5	0,5
0,250	0,5	0,5

Page 42, **Clause 10.4.3.4.1 Gross sample**

Replace the clause with the following.

When the gross sample is divided, the division shall be carried out in accordance with equation (22) or table 6. The gross sample shall not be divided further than the mass specified for the nominal top size of the ore. The standard deviation of division σ_D applies to each sample division stage, and the variances are additive for the sample division scheme selected.

Page 42, **Clause 10.4.3.4.2 Increment or partial sample**

Replace the clause with the following.

When increments or partial samples are divided, the division shall be carried out ensuring that the mass of the gross sample for the lot obtained by combining divided increments or partial samples, shall not be less than the minimum gross sample mass given by equation (22) or table 6. The standard deviation of division σ_D applies to each sample division stage, and the variances are additive for the sample division scheme selected.

Page 56, **Table B.1 — Values of σ_W (absolute percentages)**

Replace table B.1 with the following.

Quality characteristics		Classification of quality variation (σ_W)		
		Large	Medium	Small
Iron content		**2,50**	1,75	1,25
Silica content		**2,50**	1,75	1,25
Alumina content		0,70	0,50	0,35
Phosphorus content		0,018	0,013	0,009
Moisture content		**2,50**	1,75	1,25
Size of -200 mm ore	-10 mm fraction mean 20%	**12,50**	8,75	6,25
Size of -50 mm ore				
Size of -31,5+6,3 mm ore	-6,3 mm fraction mean 10%	**6,250**	4,375	3,125
Size of sinter feed	+6,3 mm fraction mean 10%			
Size of pellet feed	-45 µm fraction mean 70%	**3,750**	2,625	1,875
Size of pellets	-6,3 mm fraction mean 5%			