

ISO/TS 9516-4:2021-11 (E)

Iron ores - Determination of various elements by X-ray fluorescence spectrometry - Part 4: Performance-based method using fusion preparation method

| Contents | | Page |
|--------------------|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Reagents and materials | 2 |
| 4.1 | Pure reagents | 2 |
| 4.2 | Flux | 3 |
| 4.3 | Releasing agent | 3 |
| 4.4 | Oxidizing agents | 3 |
| 4.5 | Certified reference materials | 3 |
| 4.6 | Reference materials | 3 |
| 5 | Sampling and samples | 3 |
| 5.1 | Laboratory sample | 3 |
| 5.2 | Preparation of test samples, CRMs and RMs | 4 |
| 5.2.1 | General | 4 |
| 5.2.2 | Ores having significant contents of combined water or easily oxidizable compounds | 4 |
| 5.2.3 | Ores outside the scope of 5.2.2 | 4 |
| 5.3 | Test portion | 4 |
| 6 | Apparatus | 4 |
| 7 | Measurements | 5 |
| 7.1 | General | 5 |
| 7.1.1 | Analytical line | 5 |
| 7.1.2 | Voltage and current | 6 |
| 7.1.3 | Measuring times | 6 |
| 7.1.4 | Background measurements | 6 |
| 8 | Calibration and validation | 6 |
| 8.1 | Principles | 6 |
| 8.2 | Preparation of fusion beads | 6 |
| 8.3 | Calibration and validation samples | 6 |
| 8.4 | Validation of the calibration | 7 |
| 8.4.1 | Specimens | 7 |
| 8.4.2 | Trueness validation | 7 |
| 8.5 | Calibration maintenance | 8 |
| 8.5.1 | Monitor disc | 8 |
| 8.5.2 | Duplicate monitor discs | 8 |
| 8.5.3 | Monitor measurements | 8 |
| 8.5.4 | Quality control measurements | 9 |
| 9 | Reporting | 10 |
| 9.1 | General | 10 |
| 9.2 | Calculation of results | 10 |

| | | |
|-----|--------------------------|----|
| 9.3 | Number of decimals | 11 |
| 10 | Test report | 11 |
| | Bibliography | 12 |