International Standard 8558

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Aluminium ores — Preparation of pre-dried test samples

Minerais alumineux — Préparation d'échantillons préséchés pour essai

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8558 was prepared by Technical Committee ISO/TC 129, *Aluminium ores*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Aluminium ores — Preparation of pre-dried test samples

1 Scope and field of application

This International Standard specifies a method for the preparation of pre-dried test samples which are to be used for the determination of analytical values of constituents in aluminium ores on a dry basis.

When the analytical constituent to be calculated on a dry sample basis is aluminium or for determination of loss of mass at 1 075 °C, ISO 8557 shall be used.

2 Reference

ISO 8557, *Aluminium ores — Determination of hygroscopic moisture in analytical samples — Gravimetric method.*

3 Principle

Drying of a test sample to constant mass at a temperature of 105 °C.

4 Apparatus

Ordinary laboratory apparatus and

4.1 Weighing bottle, low form.

4.2 Laboratory oven, capable of being controlled at 105 ± 2 °C.

4.3 Desiccator, containing either actived alumina, fresh magnesium perchlorate or diphosphorus pentoxide as desiccant.

NOTE — Activated alumina should be freshly activated by heating at 300 ± 10 °C overnight.

5 Sampling and samples

A laboratory sample with a particle size of less than 150 µm shall be used.

The sample shall be thoroughly mixed, preferably by mechanical means, immediately before use.

6 Procedure

Place a test sample of less than 10 g in the weighing bottle (4.1), previously dried in the laboratory oven (4.2), controlled at 105 ± 2 °C. Dry the sample for 16 h in the oven, controlled at 105 ± 2 °C.

NOTE — In general, a weighing bottle of diameter not less than 50 mm should be used. However, a smaller bottle may be used, on the condition that the layer density of the sample is not greater than 5 mg/mm^2.

Close the bottle with a well-fitting stopper and allow it to cool to room temperature (for 30 to 45 min) in the desiccator (4.3). Slightly open the stopper and quickly close it again, then weigh the stoppered bottle and contents.

Preserve the pre-dried test sample in the desiccator in the stoppered weighing bottle. Take and weigh the test portion quickly in order to minimize reabsorption of moisture.

NOTE — If the analytical value is expected to be above 10 %, take and weigh a test portion on the day of pre-drying.