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**Hardmetals — Determination of silicon in  
cobalt metal powders using graphite-  
furnace atomic absorption**

*Métaux durs — Dosage du silicium dans les poudres métalliques de  
cobalt par absorption atomique à four graphite*



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## Foreword

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ISO 17352 was prepared by Technical Committee ISO/TC 119, *Powder metallurgy*, Subcommittee SC 4, *Sampling and testing methods for hardmetals*.

In this corrected version of ISO 17352:2008, the edition number on the cover page has been corrected from "Second" to "First".

# Hardmetals — Determination of silicon in cobalt metal powders using graphite-furnace atomic absorption

## 1 Scope

This International Standard specifies a test method, using graphite-furnace atomic absorption, to determine the mass fraction of silicon in cobalt metal powder with varying compositions within the range of 5 µg/g to 40 µg/g.

## 2 Principle

This test method for the chemical analysis of cobalt metal powder is to be used to determine traces of silicon. It is assumed that all those who use this test method will be trained analysts capable of performing common laboratory procedures skilfully and safely. It is expected that all the work will be performed in a properly equipped laboratory.

## 3 Reagents

Reagents of the highest purity and only double-distilled water or their equivalents shall be used.

**3.1 Nitric acid**,  $\rho = 1,4$  g/ml.

**3.2 Hydrochloric acid**,  $\rho = 1,15$  g/ml.

**3.3 Cobalt powder**, purity > 99,9 % by mass.

**3.4 Si solution**, 1,000 g/l.