



BSI Standards Publication

**Application of ISO 5725
for the determination of
repeatability and
reproducibility of precision
tests performed in
standardization work for
chemical analysis of steel**

National foreword

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TECHNICAL REPORT

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Application of ISO 5725 for the determination of repeatability and reproducibility of precision tests performed in standardization work for chemical analysis of steel

*Application de la norme ISO 5725 pour la détermination de la
répétabilité et la reproductibilité des essais de précision réalisés en
travaux de normalisation pour l'analyse chimique de l'acier*



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Foreword

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 1, *Methods of determination of chemical composition*.

Application of ISO 5725 for the determination of repeatability and reproducibility of precision tests performed in standardization work for chemical analysis of steel

1 Scope

This document describes how to determine the repeatability and reproducibility of precision tests performed within standardization work using the chemical analysis method. Specifically, this document explains the procedure for calculating precision, using precision test data of ISO 5725-3:1994, Table D.2 for the precision test in ISO 9647:1989 as an example.

The procedure of the international test for determining precision is described in ISO 5725-2 and ISO 5725-3.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Precision test

4.1 Structure of the precision test

The structure of the precision test normally used within standardization work using chemical analysis is a 3-factor, staggered-nested structure, as shown in [Figure 1](#).

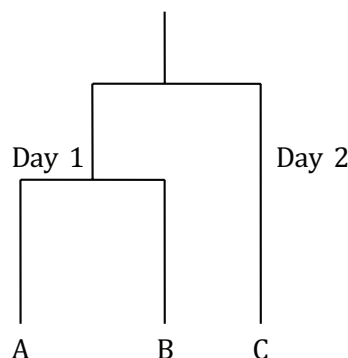


Figure 1 — Structure of the precision test