
**Determination of silver in silver jewellery
alloys — Volumetric (potentiometric)
method using sodium chloride or
potassium chloride**

*Dosage de l'argent dans les alliages d'argent pour la bijouterie-joaillerie —
Méthode volumétrique (potentiométrique) utilisant le chlorure de sodium ou
le chlorure de potassium*



Foreword

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Determination of silver in silver jewellery alloys — Volumetric (potentiometric) method using sodium chloride or potassium chloride

1 Scope

This International Standard specifies a volumetric method for the determination of silver in silver jewellery alloys, preferably within the range of fineness stated in ISO 9202. These alloys may contain copper, zinc, cadmium and palladium. Apart from palladium, which must be precipitated before commencing titration, these elements do not interfere with this method of determination.

NOTE — This method is an alternative method to ISO 11427¹⁾ which has been identified as the reference method.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 9202:1991, *Jewellery — Fineness of precious metal alloys*

3 Principle

The sample is dissolved in dilute nitric acid. The silver content of the resulting solution is determined by titration with standard sodium chloride or potassium chloride solution using a potentiometric indication of the equivalence point.

4 Reagents

During the analysis, unless otherwise stated, use only reagents of recognised analytical grade and only distilled water or water of equivalent purity.

4.1 Nitric acid, 33 % (m/m), ($\rho_{20} = 1,2$ g/ml), with a halide content of less than 5 ppm.

¹⁾ ISO 11427:1993, *Determination of silver in silver jewellery alloys — Volumetric (potentiometric) method using potassium bromide*.