SLOVENSKI STANDARD
SIST EN ISO 11210:1998

01-april-1998

Določevanje platine v zlitinah za nakit iz platine - Gravimetrična metoda po obarjanju diamonijevega heksakloroplatinata (ISO 11210:1995)

Determination of platinum in platinum jewellery alloys - Gravimetric method after precipitation of diammonium hexachloroplatinate (ISO 11210:1995)

Bestimmung von Platin in Platin-Schmucklegierungen - Gravimetrische Bestimmung nach Fällung als Diammoniumhexachloroplatinat (ISO 11210:1995)

Dosage du platine dans les alliages de platine pour la bijouterie-joaillerie - Méthode gravimétrique apres précipitation de l'hexachloroplatinate de diammonium (ISO 11210:1995)

Ta slovenski standard je istoveten z: **EN ISO 11210:1995**

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39.060	Nakit	Jewellery

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English version

Determination of platinum in platinum jewellery alloys - Gravimetric method after precipitation of diammonium hexachloroplatinate (ISO 11210:1995)

Dosage du platine dans les alliages de platine pour la bijouterie-joaillerie - Méthode gravimétrique après précipitation de l'hexachloroplatinate de diammonium (ISO 11210:1995)

Bestimmung von Platin in Platin-Schmucklegierungen - Gewichtsanalytische Bestimmung durch Fällung als Diammonium-Hexachloroplatinat (ISO 11210:1995)

This European Standard was approved by CEN on 1995-04-27. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

The text of the International Standard ISO 11210:1995 has been prepared by Technical Committee ISO/TC 174 "Jewellery" in collaboration with CEN/TC 283 "Precious metals - Applications in jewellery and associated products". It has been submitted to Parallel Vote and has been approved by CEN on 1995-04-27 as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1995, and conflicting national standards shall be withdrawn at the latest by November 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 11210:1995 was approved by CEN as a European Standard without any modification.

Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

Publication	Year	Title	EN	Year
ISO 9202	1991	Jewellery - Fineness of precious metal Alloys	EN 29202	1992

INTERNATIONAL STANDARD

ISO 11210

First edition
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Determination of platinum in platinum jewellery alloys — Gravimetric method after precipitation of diammonium hexachloroplatinate

Dosage du platine dans les alliages de platine pour la bijouterie — Joaillerie — Méthode gravimétrique après précipitation de l'hexachloroplatinate de diammonium

Reference number
ISO 11210:1995(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11210 was prepared by Technical Committee ISO/TC 174, *Jewellery*.

Annex A of this International Standard is for information only.

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Determination of platinum in platinum jewellery alloys — Gravimetric method after precipitation of diammonium hexachloroplatinate

1 Scope

This International Standard specifies a gravimetric method for the determination of platinum in platinum jewellery alloys, preferably within the range of fineness stated in ISO 9202.

These alloys may contain palladium, iridium, rhodium, copper, cobalt, gold, ruthenium, gallium, chromium, indium and less than 5 % tungsten. Some modifications are indicated where palladium, iridium, rhodium, gold or ruthenium are present.

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 *aqua regia*. After converting the sample solution to a slightly acid medium, the platinum is precipitated as diammonium hexachloroplatinate. The precipitate is converted to metallic platinum. Coprecipitated alloying elements are tested for in the redissolved platinum sponge and measured by, for example, atomic absorption and inductively coupled plasma (ICP) emission spectrometry, and a correction applied.

4 Reagents

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

4.1 Hydrochloric acid, 36 % (*m/m*) to 38 % (*m/m*), ρ_{20} = 1,19 g/cm^3.

4.2 Dilute hydrochloric acid, 18 % (*m/m*), ρ_{20} = 1,09 g/cm^3.

4.3 Nitric acid, 69 % (*m/m*), ρ_{20} = 1,41 g/cm^3.

4.4 Ammonium chloride solution (NH_4Cl), cold saturated solution.

4.5 Reducing gas, such as hydrogen or a hydrogen/nitrogen mixture.

4.6 Inert gas, such as carbon dioxide or nitrogen.

4.7 *Aqua regia*.

Mix 3 volumes of hydrochloric acid (4.1) and 1 volume of nitric acid (4.3).

WARNING — *Aqua regia* is potentially hazardous and safety glasses or goggles must be used. Dissolution should be carried out in a well-ventilated fume cupboard.

5 Apparatus

Ordinary laboratory apparatus and