EESTI STANDARD EVS-EN 23907:2000

Kõvasulamid. Süsiniku üldsisalduse määramine. Kaalumeetod

Hardmetals - Determination of total carbon content - Gravimetric method

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 23907:2000 sisaldab Euroopa standardi EN 23907:1993 ingliskeelset teksti.	This Estonian standard EVS-EN 23907:2000 consists of the English text of the European standard EN 23907:1993.
Standard on kinnitatud Eesti Standardikeskuse 11.01.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 11.01.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 77.160

EUROPEAN STANDARD

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Descriptors: Powder metallurgy, hard metals, chemical analysis, determination of content, carbon, gravimetric analysis

English version

Hardmetals - Determination of total carbon content - Gravimetric method (ISO 3907:1985)

Métaux-durs - Dosage du carbone total - Méthode gravimétrique (ISO 3907:1985)

Hartmetalle - Bestimmung des Gesamtkohlenstoff-Gehaltes - Gravimetrisches Verfahren (ISO 3907:1985)

This European Standard was approved by CEN on 1993-04-02. 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.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

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

Foreword

In 1992 ISO 3907:1985 "Hardmetals - Determination of total carbon content - Gravimetric method" was submitted to the CEN Primary Questionnaire procedure.

Following the positive result of the CEN/CS Proposal ISO 3907:1985 was submitted to the CEN Formal Vote. The result of the Formal Vote was positive.

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 October 1993, and conflicting national standards shall be withdrawn at the latest by October 1993.

According to the Internal Regulations of CEN/CENELEC, 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 United Kingdom.

Endorsement notice

The text of the International Standard ISO 3907:1985 was approved by CEN as a European Standard without any modification.

International Standard 3907

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Hardmetals — Determination of total carbon content — Gravimetric method

Métaux-durs — Dosage du carbone total — Méthode gravimétrique

Second edition — 1985-02-01

UDC 621.762 : 546.26 : 543.21 **Ref. No. ISO 3907-1985 (E)**

Descriptors : powder metallurgy, carbides, sintered products, hardmetals, chemical analysis, determination of content, carbon, gravimetric analysis.

Price based on 3 pages

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.

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 3907 was prepared by Technical Committee ISO/TC 119, *Powder metallurgy*.

ISO 3907 was first published in 1977. This second edition cancels and replaces the first edition, of which it constitutes a technical revision.

Hardmetals — Determination of total carbon content — Gravimetric method

1 Scope

This International Standard specifies a gravimetric method for determination of the total carbon content of carbides and hardmetals.

2 Field of application

This method is applicable to

— carbides of chromium, hafnium, molybdenum, niobium, tantalum, titanium, vanadium, tungsten and zirconium,

— mixtures of these carbides and binder metals, free of lubricant,

— all grades of presintered or sintered hardmetals, produced from these carbides,

having a total carbon content exceeding 4 % (m/m).

3 Principle

Oxidation of carbon to carbon dioxide at high temperature in a stream of pure oxygen, with the addition of a flux if necessary.

Absorption of the carbon dioxide, carried by oxygen, by ascarite in a tared bulb. Determination of the increase in mass of the ascarite, which corresponds to the quantity of carbon dioxide formed.

$$C + O_2 \rightarrow CO_2$$

$$2NaOH + CO_2 \rightarrow Na_2CO_3 + H_2O$$

4 Reagents

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

4.1 Oxygen, with a limitation of carbon-containing impurities $\leqslant$ 0,6 ml of carbon per cubic metre of oxygen.

4.2 Magnesium perchlorate, anhydrous.

CAUTION — To prevent any possibility of explosion, contact of this reagent with organic materials should be avoided, especially when discarding it.

4.3 Flux, for example tin metal, copper metal or oxide, iron metal.

4.4 Ascarite.