

**Pehme madaltemperatuurjootmise
rübustid. Katsemeetodid. Osa 9:
Ammoniaagisisalduse määramine**

Soft soldering fluxes - Test methods - Part 9:
Determination of ammonia content

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN ISO 9455-9:1999 sisaldab Euroopa standardi EN ISO 9455-9:1995 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN ISO 9455-9:1999 consists of the English text of the European standard EN ISO 9455-9:1995.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p>Käsitlusala: ISO 9455 käesolev osa määrab kindlaks destillatsioonimeetodi ammoniaagisisalduse määramiseks tahketes, pastataolistes ja vedelates rübustites.</p> | <p>Scope:</p> |
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ICS 25.160.50

Võtmesõnad: ammoniaak (gaasiline), keemiline analüüs, madaltemperatuurjootmine, madaltemperatuurjootmise rübustid, mahtanalüüs, sisalduse määramine, testimine

ICS 25.160.20; 25.160.50

Descriptors: Fluxes, soldering, testing.

English version

Soft soldering fluxes

Test methods

**Part 9: Determination of ammonia content
(ISO 9455-9:1993)**

Flux de brasage tendre; méthodes
d'essai. Partie 9: Dosage de l'ammoniac
(ISO 9455-9:1993)

Flußmittel zum Weichlöten; Prüfverfahren.
Teil 9: Bestimmung des Ammonium-
gehaltes (ISO 9455-9:1993)

This European Standard was approved by CEN on 1995-08-27 and is identical to the ISO Standard referred to.

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.

This European Standard exists 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.

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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

International Standard

ISO 9455-9:1993 Soft soldering fluxes; test methods; determination of ammonia content, which was prepared by ISO/TC 44 'Welding and allied processes' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 121 'Welding' 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, and conflicting national standards withdrawn, by March 1996 at the latest.

In accordance with 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 United Kingdom.

Endorsement notice

The text of the International Standard ISO 9455-9:1993 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

1 Scope

This part of ISO 9455 specifies a distillation method for the determination of the ammonia content of solid, paste or liquid fluxes. The method is applicable to fluxes of class 3.1.1 only, as defined in ISO 9454-1.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 9455. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9455 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 9454-1:1990, *Soft soldering fluxes — Classification and requirements — Part 1: Classification, labelling and packaging*.

3 Principle

The prepared flux solution is distilled with sodium hydroxide to expel the ammonia present in the flux. The resulting distillate is passed into a standard sulfuric acid solution. The excess acid is then titrated with sodium hydroxide solution and the ammonia content of the flux is calculated.

4 Reagents

4.1 General

Use only reagents of recognized analytical quality and only distilled, or deionized, water.

4.2 Sodium hydroxide solution, 1,0 mol/l standard solution, commercially available.

Alternatively, use an approximately 1,0 mol/l solution of sodium hydroxide, prepared by the following method. Dissolve 40 g of sodium hydroxide in water and cool. Transfer the solution to a 1 litre volumetric flask, dilute to the mark and mix well. Standardize this solution with 0,5 mol/l sulfuric acid solution (4.3).

4.3 Sulfuric acid, 0,5 mol/l, standard solution, commercially available.

Alternatively, use an approximately 0,5 mol/l solution of sulfuric acid prepared by the following method. Cautiously add 30 ml of sulfuric acid ($\rho = 1,84$ g/ml) to 400 ml of water and mix. Cool and transfer to a 1 litre volumetric flask, dilute to the mark and mix well. Standardize this solution with a standard solution prepared from anhydrous sodium carbonate.

NOTE 1 1 ml of 0,5 mol/l sulfuric acid is equivalent to 0,053 5 g of ammonium chloride.

4.4 Sulfuric acid, 50 % (V/V) solution.

Adopting appropriate safety precautions, carefully add 500 ml of sulfuric acid ($\rho = 1,84$ g/ml) to 500 ml of water. Mix well.

WARNING — This is a potentially dangerous procedure and should be carried out by a trained person.

4.5 Sodium hydroxide solution, 10 mol/l.

Dissolve 400 g of sodium hydroxide in water. Dilute to 1 litre and mix well. This solution should be prepared in a water-cooled polyethylene beaker and stored in a polyethylene bottle.