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Welding - Test for shop primers in relation to welding and allied processes - Part 4: Emission of fumes and gases

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 17652-4:2003 sisaldab Euroopa standardi EN ISO 17652-4:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 14.08.2003 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 17652-4:2003 consists of the English text of the European standard EN ISO 17652-4:2003.</p> <p>This document is endorsed on 14.08.2003 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: This part of this standard specifies rating of shop primers as regards their influence on emission of fumes and gases during welding. For precaution for protection of health, safety and environment during testing, see EN ISO 17652-1</p>	<p>Scope: This part of this standard specifies rating of shop primers as regards their influence on emission of fumes and gases during welding. For precaution for protection of health, safety and environment during testing, see EN ISO 17652-1</p>
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ICS 25.160.10

Võtmesõnad: co, m, materials testing, metallic materials, metals, pollutant emissions, quality assurance, smoke, smoke development, specification (approval), specifications, steel welding, test specimens, testing, welded joints, welding, welding engineering, welding processes

ICS 13.040.40; 25.160.10

English version

Welding

Test for shop primers in relation to welding and allied processes

Part 4: Emission of fumes and gases
(ISO 17652-4 : 2003)

Soudage – Essai sur peintures primaires en relation avec le soudage et les techniques connexes – Partie 4: Émission des fumées et des gaz (ISO 17652-4 : 2003)

Schweißen – Prüfung von Fertigungsbeschichtungen für das Schweißen und für verwandte Prozesse – Teil 4: Emission von Rauchen und Gasen (ISO 17652-4 : 2003)

This European Standard was approved by CEN on 2003-01-02.

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 Management Centre 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 Management Centre has the same status as the official versions.

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

CEN

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

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Foreword

This document (EN ISO 17652-4:2003) has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS, in collaboration with Technical Committee ISO/TC 44 "Welding and allied processes".

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 2003, and conflicting national standards shall be withdrawn at the latest by November 2003.

EN ISO 17652 consists of the following parts, under the general title: *Welding – Test for shop primers in relation to welding and allied processes*:

- Part 1: *General requirements*
- Part 2: *Welding properties of shop primers*
- Part 3: *Thermal cutting*
- Part 4: *Emission of fumes and gases*

Annex ZA is informative.

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

Introduction

Welding and allied processes produce particulate fume and gaseous by-products which may be harmful to human health and the environment. Application of a shop primer is likely to alter the composition and rate of the emission.

A knowledge of the quantity of particulate fume and gases generated and the composition of the particulate fume may be useful for occupational hygienists in accessing workplace atmospheres. Emission rates cannot be directly related to fume concentrations existing in a welder's breathing zone, but shop primers with low emission rates are supposed to produce less fume concentration compared with high emission rates for the same welding condition.

1 Scope

This part of this standard specifies rating of shop primers as regards their influence on emission of fumes and gases during welding.

For precaution for protection of health, safety and environment during testing, see EN ISO 17652-1.

2 Normative references

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 (including amendments).

EN 439, *Welding consumables - Shielding gases for arc welding and cutting.*

EN 440, *Welding consumables - Wire electrodes and deposits for gas shielded metal arc welding of non alloy and fine grain steels - Classification.*

EN ISO 2808, *Paints and varnishes - Determination of film thickness (ISO 2808:1999).*

EN ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:1998).*

EN ISO 6947, *Welds — Working positions — Definitions of angles of slope and rotation (ISO 6947:1993).*

EN 10025:1990, *Hot rolled products of non-alloy structural steels — Technical delivery conditions.*

EN 10238, *Automatically blast-cleaned and automatically prefabricated primed structural steel products.*

EN ISO 15011-1, *Health and safety in welding and allied processes - Laboratory method for sampling fume and gases generated by arc welding - Part 1: Determination of emission rate and sampling for analysis of particulate fume (ISO 15011-1:2002).*

prEN ISO 15011-2, *Health and safety in welding and allied processes - Laboratory method for sampling fume and gases generated by arc welding - Part 2: Determination of emission rates of gases, except ozone (ISO/FDIS 15011-2:2002).*

EN ISO 17652-1:2003, *Welding - Test for shop primers in relation to welding and allied processes - Part 1: General requirements (ISO 17652-1:2003).*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions in EN ISO 17652-1:2003 apply.

4 Emission test

4.1 Preparation of test piece

2 × 3 test pieces with shop primers shall be prepared for each shop primer. Further, 2 × 3 abrasive blasted test pieces shall be used as a reference.

Each test piece shall consist of one mild steel plate conforming to S275 of EN 10025. The dimensions of the test pieces shall be as follows:

10 mm × 100 mm × 500 mm