

Põllumajandustraktorid ja liikurpitsid
Operaatori (juhi) kaitse ohtlike ainete eest
Osa 2: Filtrid, nõuded ja katseprotseduurid

Agricultural tractors and self-propelled sprayers
Protection of the operator (driver) against hazardous
substances
Part 2: Filters, requirements and test procedures

EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15695-2:2010 sisaldab Euroopa standardi EN 15695-2:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.01.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 25.11.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15695-2:2010 consists of the English text of the European standard EN 15695-2:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.01.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 25.11.2009.

The standard is available from Estonian standardisation organisation.

ICS 65.060.10

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute Estonian Standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:
Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: +372 605 5050; E-mail: info@evs.ee

English Version

Agricultural tractors and self-propelled sprayers - Protection of the operator (driver) against hazardous substances - Part 2: Filters, requirements and test procedures

Tracteurs agricoles et pulvérisateurs automoteurs -
Protection de l'opérateur (conducteur) contre les
substances dangereuses - Partie 2: Filtres, exigences et
méthodes d'essai

Landwirtschaftliche Traktoren und selbstfahrende
Arbeitsmaschinen - Schutz vor gefährlichen Stoffen - Teil 2:
Luftreinigungseinrichtungen

This European Standard was approved by CEN on 24 October 2009.

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

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Requirements and test procedures	6
3.1 Pre-test vibration conditioning.....	6
3.2 Dust filter	6
3.2.1 Requirements	6
3.2.2 Test procedure	6
3.3 Aerosol filter.....	6
3.3.1 Requirements	6
3.3.2 Test procedure	6
3.4 Vapour filter.....	7
3.4.1 Requirements	7
3.4.2 Test procedure	7
4 Information for use	7
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Machinery Directive 98/37/EC, amended by Directive 98/79/EC.....	8
Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	9

EVS

Foreword

This document (EN 15695-2:2009) has been prepared by Technical Committee CEN/TC 144 “Tractors and machinery for agriculture and forestry”, the secretariat of which is held by AFNOR.

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 May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document.

EN 15695, *Agricultural tractors and self-propelled sprayers – Protection of the operator (driver) against hazardous substances*, consists of the following parts:

- *Part 1: Cab classification, requirements and test procedures*
- *Part 2: Filters, requirements and test procedures*

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

EVS

Introduction

This document is a type C standard as stated in EN ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this European Standard. When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

When operating self-propelled sprayers and tractors the operator can be exposed to hazardous substances such as dust, aerosols or vapours (for example during the application of plant protection products or fertilisers). Cabs of agricultural tractors and self-propelled sprayers providing protection against these substances may respectively be used to reduce operator exposure to air-borne contaminants generated during farming operations.

With regard to the application of plant protection products (PPP) the operator can be exposed to risks:

- before the actual spraying operation (e.g. handling of PPP cans/packages, spray tank filling, sprayer adjustment);
- during the spraying operation (e.g. on the tractor or self-propelled sprayer with/without cab, when working at the sprayer when adjusting the sprayer in the field, removing nozzle blockages, etc.);
- after the spraying operation (e.g. when removing residues, sprayer cleaning, service and maintenance operations).

Protective measures (personal protective equipment (PPE)) are specified on labels today, for example:

- dermal exposure: gloves, overall, apron, headdress (with face protection), protective goggles;
- respiratory exposure: filtering half masks.

The objective of this European Standard is to improve the operator protection by using the protective function of the cab of self-propelled sprayers and tractors in case of mounted or trailed sprayers. For this purpose, this European Standard specifies cab categories, performance requirements, test procedures and the operator information to be provided, in particular with regard to installation, use and maintenance operations.

EVS

1 Scope

This European Standard is applicable to filters as part of cabs of categories 2, 3 and 4 of agricultural and forestry tractors and self-propelled sprayers as specified in EN 15695-1 in order to limit the exposure of the operator (driver) to hazardous substances, in agricultural and forestry operations. It specifies requirements, test procedures and the information to be provided by the filter manufacturer.

This standard does not cover:

- the exposure linked to fumigants;
- the category of cab and performance level to be used for any particular application;
- the actual cab performance in the field applications;
- field durability of filters or filtration systems.

This document is not applicable to filters which are manufactured before the date of its publication as EN.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 143:2000, *Respiratory protective devices — Particle filters — Requirements, testing, marking*

EN 1822-2, *High efficiency air filters (EPA, HEPA and ULPA) — Part 2: Aerosol production, measuring equipment, particle counting statistics*

EN 1822-5, *High efficiency air filters (EPA, HEPA and ULPA) — Part 5: Determining the efficiency of filter elements*

EN 12941:1998, *Respiratory protective devices — Powered filtering devices incorporating a helmet or a hood — Requirements, testing, marking*

EN 14387:2004, *Respiratory protective devices — Gas filter(s) and combined filter(s) — Requirements, testing, marking*

EN 15695-1:2009, *Agricultural tractors and self-propelled machinery — Protection of the operator (driver) against hazardous substances — Part 1: Cab classification, requirements and test procedures*

ISO 14269-4, *Tractors and self-propelled machines for agriculture and forestry — Operator enclosure environment — Part 4: Air filter element test method*