

Masinaid ja seadmeid lehtklaasi valmistamiseks, töötlemiseks ja käitlemiseks. Ohutusnõuded. Osa 1: Seadmed klaasi hoidmiseks, käsitsemiseks ja transpordiks tehases

Machines and plants for the manufacture, treatment and processing of flat glass - Safety requirements - Part 1: Storage, handling and transportation equipment inside the factory

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13035-1:2008 sisaldab Euroopa standardi EN 13035-1:2008 ingliskeelset teksti.

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English Version

Machines and plants for the manufacture, treatment and processing of flat glass - Safety requirements - Part 1: Storage, handling and transportation equipment inside the factory

Machines et installations pour la production, le façonnage et la transformation du verre plat - Exigences de sécurité - Partie 1 : Stockage, manutention et transport à l'intérieur de l'usine

Maschinen und Anlagen für die Herstellung, Be- und Verarbeitung von Flachglas - Sicherheitsanforderungen - Teil 1: Einrichtungen zum Lagern, Handhaben und Transportieren innerhalb des Werks

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Foreword

This document (EN 13035-1:2008) has been prepared by Technical Committee CEN/TC 151 “Construction equipment and building material machines — Safety”, the secretariat of which is held by DIN.

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). It is one of a series concerning machinery for the manufacture, treatment and processing of flat glass (see Bibliography).

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

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of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

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.

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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 events are covered are indicated in the scope of this document.

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.

In this European Standard it is assumed that:

- negotiation occurs between the manufacturer and the user/purchaser concerning particular conditions of use not dealt with in this standard and specific interfaces consideration (e.g. Annex C – Clearances for interfacing equipment);
- the floors inside the factory used for glass charging and discharging processes are virtually horizontal and without significant asperities.

1 Scope

1.1 This standard contains the requirements for safety for the design and installation of equipment intended for the storage, handling and transportation of flat glass inside the factory as described in Clause 3. It applies to stationary, movable and mobile storage equipment (see 3.2), mechanical and pneumatic handling equipment (see 3.3) and transportation equipment (see 3.4) (see overview in Annex A).

1.2 Additional requirements for dealing with specific hazards due to the use outside the factory are dealt with in prEN 13035-2.

1.3 This standard only deals with the devices which are directly in contact with the glass. Tractors, cranes, hoists and fork lifts are out of the scope as well as parts of other powered vehicles that are not in contact with the glass (see 3.4.1). This standard does not apply to manual handling equipment as defined in 3.3.1.

1.4 This standard deals with all significant hazards, hazardous situations and events relevant to equipment for the storage, handling and transportation of flat glass, when they are used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4). This standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards during commissioning, the operation and maintenance. Noise has not been considered to be a significant hazard for any type of equipment in the scope of this standard.

1.5 This document is not applicable to storage, handling or transportation equipment for flat glass inside the factory, which is 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 294:1992, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs*

- EN 349:1993, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*
- EN 811:1996, *Safety of machinery — Safety distances to prevent danger zones being reached by the lower limbs*
- EN 953:1997, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*
- EN 954-1:1996, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*
- EN 983:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics*
- EN 999:1998, *Safety of machinery — The positioning of protective equipment in respect of approach speeds of parts of the human body*
- EN 1037:1995, *Safety of machinery — Prevention of unexpected start-up*
- EN 1088:1995, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*
- EN 1757-3:2002, *Safety of industrial trucks — Pedestrian controlled manual and semi-manual trucks — Part 3: Platform trucks*
- EN 13155:2003, *Cranes — Safety — Non-fixed load lifting attachments*
- EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*
- EN ISO 11201:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995)*
- EN ISO 11202:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Survey method in situ (ISO 11202:1995)*
- EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*
- EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*
- EN ISO 13850:2006, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*
- EN ISO 14122-1:2001, *Safety of machinery — Permanent means of access to machinery — Part 1: Choice of a fixed means of access between two levels (ISO 14122-1:2001)*
- EN ISO 14122-2:2001, *Safety of machinery — Permanent means of access to machinery — Part 2: Working platforms and walkways (ISO 14122-2:2001)*
- EN ISO 14122-3:2001, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, step-ladders and guard-rails (ISO 14122-3:2001)*
- EN ISO 14122-4:2004, *Safety of machinery — Permanent means of access to machinery — Part 4: Fixed ladders (ISO 14122-4:2004)*
- ISO 3864-1:2002, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas*