

Masinaid ja seadmeid lehtklaasi valmistamiseks, töötlemiseks ja käitlemiseks. Ohutusnõuded. Osa 2: Seadmed klaasi hoidmiseks, käsitsemiseks ja transpordiks väljaspool tehast

Machines and plants for the manufacture, treatment and processing of flat glass - Safety requirements - Part 2: Storage, handling and transportation equipment outside the factory

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13035-2:2008 sisaldab Euroopa standardi EN 13035-2:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 26.05.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.03.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13035-2:2008 consists of the English text of the European standard EN 13035-2:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 26.05.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 12.03.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

**Machines and plants for the manufacture, treatment and
processing of flat glass - Safety requirements - Part 2: Storage,
handling and transportation equipment outside the factory**

Machines et installations pour la production, le façonnage
et la transformation du verre plat - Prescriptions de sécurité
- Partie 2: Équipement de stockage, de manutention et de
transport à l'extérieur de l'usine

Maschinen und Anlagen für die Herstellung, Be- und
Verarbeitung von Flachglas - Sicherheitsanforderungen -
Teil 2: Einrichtungen zum Lagern, Handhaben und
Transportieren außerhalb des Werks

This European Standard was approved by CEN on 5 January 2008.

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Foreword

This document (EN 13035-2:2008) 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 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.

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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.

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.

Introduction

This document is a type C standard as stated in EN ISO 12100-1.

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 equipment that has 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;
- stationary storage equipment with or without mobile support, mechanical handling devices (see EN 13035-1) are not intended for use outside the factory;
- mobile racks and in-loader stillages can only be used on virtually horizontal grounds without significant asperities (see Clause 7).

1 Scope

1.1 This standard contains the requirements for safety for the design and installation of equipment intended for the storage (as defined in 3.2.1), handling (as defined in 3.2.2) and transportation (as defined in 3.2.3) of flat glass outside the factory (as defined in 3.1.1) and including stillages, pallets, frails fixed to vehicles, in-loader vehicles, specific glass-securing devices, stanchions and vacuum-lifting devices which are used for road transport and on building sites.

1.2 Specific hazards due to the use inside the factory are dealt with in EN 13035-1.

1.3 This standard deals only with the devices which are directly in contact with the glass. This standard does not apply to manual handling equipment such as carrying straps and vacuum pads. 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. This European Standard does not apply to equipment for the transport by other ways than on road e.g. by ship or train, and the transportation of glazed windows/frames.

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 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 outside 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 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 981:1996, *Safety of machinery — System of auditory and visual danger and information signals*

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 12195-1:2003, *Load restraint assemblies on road vehicles — Safety — Part 1: Calculation of lashing forces*

EN 13035-1:2007, *Machines and plants for the manufacture, treatment and processing of flat glass — Safety requirements — Part 1: Storage, handling and transportation equipment inside the factory*

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, stepladders 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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1, EN 13035-1 and the following apply.

3.1 General definitions

3.1.1

outside the factory

all areas, such as building sites, in which the glass is stored and moved, with the exception of enclosed buildings and company premises for glass manufacturing and processing

3.1.2

gust

sudden wind-speed increase