



National Standards Authority of Ireland
Údarás um Chaighdeáin Náisiúnta na hÉireann

IRISH STANDARD

I.S. EN 13035-2:2008

ICS 81.100

**MACHINES AND PLANTS FOR THE
MANUFACTURE, TREATMENT AND
PROCESSING OF FLAT GLASS - SAFETY
REQUIREMENTS - PART 2: STORAGE,
HANDLING AND TRANSPORTATION
EQUIPMENT OUTSIDE THE FACTORY**

National Standards
Authority of Ireland
Northwood, Dublin 9
Ireland

Tel: +353 1 807 3800
Fax: +353 1 807 3838
<http://www.nsai.ie>

Sales

<http://www.standards.ie>

*This Irish Standard was
published under the authority
of the National Standards
Authority of Ireland and
comes into effect on:
18 June 2008*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 2008

Price Code I

Údarás um Chaighdeáin Náisiúnta na hÉireann

This page is intentionally left BLANK.

ICS 81.100

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.

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: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
3.1 General definitions	7
3.2 Definitions concerning equipment.....	8
4 List of significant hazards	9
4.1 General.....	9
4.2 During transportation.....	9
4.3 During loading and unloading.....	10
4.4 Flat glass transport by in-loader	11
5 Safety requirements and/or protective measures	11
5.1 General.....	11
5.2 General requirements.....	12
5.3 Angle of lean	12
5.4 Glass-retaining systems	12
5.5 Bearers and cladding materials	13
5.6 Special transport systems	13
5.6.1 In-loader vehicle.....	13
5.6.2 Frail on truck and van	15
5.6.3 Stillages and pallets	15
5.7 Vacuum lifting device.....	15
6 Verification of safety requirements and/or protective measures	15
7 Information for use	16
7.1 General.....	16
7.2 Signals and warning devices.....	16
7.3 Accompanying documents.....	16
7.4 Marking	17
Annex A (informative) Types of equipment	18
Annex B (informative) Guidelines for the glass-retention devices	21
B.1 Hydraulic and pneumatic supports.....	21
B.2 Air bags/cushions.....	21
B.3 Stanchions for supports on frails	21
B.4 Protection of the belt against glass impacts by means of an edge protection.....	21
B.5 Straps.....	21
Annex C (informative) Symbols for labels and signs	22
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU-Directive 98/37/EC.....	23
Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	24
Bibliography.....	25

Figures

Figure A.1 — Frail, fitted to a van18

Figure A.2 — Frail with a changeable angle of lean19

Figure A.3 — Frail with movable feet to secure the angle of lean during loading/unloading19

Figure A.4 — In-loader vehicle20

Figure C.1 — Warning of hand injuries22

Figure C.2 — Trespassing prohibited22

Tables

Table 19

Table 210

Table 311

Table 416

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.

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). 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.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-