



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 14434:2004

Writing boards for educational institutions - Ergonomic, technical and safety requirements and their test methods

Tableaux pour établissements
d'enseignement - Exigences
ergonomiques, techniques et de sécurité
et méthodes d'essai correspondantes

Wandtafeln für Bildungseinrichtungen -
Ergonomische, technische und
sicherheitstechnische Anforderungen
und Prüfverfahren

12/2004



National Foreword

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EUROPEAN STANDARD ILNAS-EN 14434:2004 **EN 14434**
NORME EUROPÉENNE
EUROPÄISCHE NORM
December 2004

ICS 03.180; 13.180; 97.140

English version

**Writing boards for educational institutions - Ergonomic, technical
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Prüfverfahren

This European Standard was approved by CEN on 15 November 2004.

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Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 General test conditions	6
5 Test equipment	7
6 General safety requirements	7
7 Surface tests and requirements for whiteboards.....	8
8 Surface tests and requirements for chalkboards.....	11
9 Structural tests and requirements	15
10 Ergonomic requirements	19
11 Test report	20
12 Installation instructions	20
13 Product information.....	20
Annex A (normative) Assessment scale for the ability to write - Five levels chalk scale.....	22
Annex B (informative) Terminology.....	24

Foreword

This document (EN 14434:2004) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

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

1 Scope

This document specifies ergonomic, technical and safety requirements for wall mounted and free-standing writing boards for use in rooms for educational and training purposes, e.g. classrooms, lecture theatres for schools, universities etc.

It is intended to prevent serious injury through normal functional use, as well as misuse that might reasonably be expected to occur.

This document applies to units after installation. Safety depending on the structure of the building is not included, e.g. the strength of wall mounted boards includes only the board and its parts. The wall and the wall attachment are not included.

Requirements concerning electrical safety are not included.

Annex A (normative) includes an assessment scale for the ability to write and erase.

Annex B (informative) includes terminology for display writing boards.

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 438-2:1991, *Decorative high-pressure laminates (HPL) – Sheets based on thermosetting resins – Part 2: Determination of properties (ISO 4586-2:1988, modified)*

EN 1023-3, *Office furniture – Screens – Part 3: Test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

board attachment

element by which the board is attached to the rail (see Annex B, Figure B.20)

3.2

chalkboard

writing board with a writing surface to be used for chalk

3.3

fixed board

board or assembly of boards fixed by various means (see Annex B, Figures B.2, B.3 and B.4)

3.4

fixing element

joint by which the rail is mounted to the wall

3.5**flip chart**

one-sided board placed or fixed on an easel or a rail with the facility to attach a paper pad (see Annex B, Figure B.16)

3.6**horizontally sliding board**

board with or without wing with only horizontal board movements in the same plane, manually or power operated

3.7**map holder**

permanent system at the upper part of the board allowing maps, charts or other documents to be temporarily hung in place (see Annex B, Figure 18)

3.8**mobile board**

board or assembly of boards, which may be moved on the floor from one place to another (see Annex B, Figures B.5, B.6 and B.7)

3.9**overall frame**

outer frame or structure allowing movement of a sliding board

3.10**pivoting board**

two-sided board articulated on its horizontal or vertical axis and standing on braced feet, with or without castors (see Annex B, Figures B.5, B.6)

3.11**rail based board/system**

board hanging and/or sliding on horizontally wall mounted rails (see Annex B, Figure B.20)

3.12**roller board (revolving surface board)**

assembly with top and bottom horizontal rollers allowing a continuous loop of flexible writing surface to be revolved between rollers. These boards may be wall mounted or mobile (see Annex B, Figure B.17)

3.13**sash board**

assembly of one or two-sided boards sliding vertically, independent of each other and individually counter-balanced (see Annex B, Figure B.10)

3.14**sliding board**

board with horizontal and/or vertical movements in the same plane, manually or power operated. It does not include a railed-based system (see Annex B, Figures B.9, B.10, B.11, B.12 and B.13)

3.15**tilting board**

manually or power-operated inclinable one-sided board articulated on its lower horizontal edge, e.g. screens for overhead projectors (see Annex B, Figure B.11)

3.16**to and fro system**

assembly of one- or two-sided boards sliding vertically, counter-balancing each other in all positions (see Annex B, Figure B.9).

3.17**transmission element**

any means to transmit a movement such as to and fro, or sash

3.18**tray**

ledge placed at the lower part of the board upon which writing implements may be placed (see Annex B, Figure B.18)

3.19**vertically and horizontally sliding board**

board with or without wing with vertical and horizontal movements in the same plane, manually or power operated

3.20**vertically sliding board**

board with or without wing, with only vertical movements in the same plane, manually or power operated (see Annex B, Figures B.9, B.10, B.11, B.12 and B.13)

3.21**whiteboard**

writing board with a writing surface of a light colour to be used for dry marker pen

3.22**wall mounted board**

one-sided board fixed to the wall (see Annex B, Figure B.1)

3.23**wing**

two-sided board mounted on a vertically hinged system

3.24**winged board**

assembly comprising a one-sided board and one or more wings. Double-board, triple-board and book-leaf are examples of winged boards (see Annex B, Figures B.2, B.3 and B.4)

3.25**writing board**

board with one or more writing surfaces for the display of information

3.26**writing surface**

surface for the display of information by means of writing and/or by other methods. The surface is erasable and re-usable

4 General test conditions**4.1 Preliminary preparation**

Before any of the tests are commenced, the item shall be old enough to ensure that it has developed its full strength. In the case of surfaces and glued joints in timber and the like, at least four weeks in normal indoor conditions shall have elapsed between manufacturing and testing.

All boards shall be tested as delivered. If of knock-down type, it shall be assembled according to the instructions supplied with the board. If the board can be assembled or combined in different ways, the most adverse combination shall be used for each test. The same is valid for units that can be combined with other units or components.