National Standards Authority of Ireland
Údarás um Chaighdeáin Náisiúnta na hÉireann

STANDARD RECOMMENDATION

S.R. CEN/TS 15209:2008

ICS 11.180.30
93.080.10

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

TACTILE PAVING SURFACE INDICATORS PRODUCED FROM CONCRETE, CLAY AND STONE

This Standard Recommendation was published under the authority of the National Standards Authority of Ireland and comes into effect on:
14 July 2008

Price Code L

This page is intentionally left BLANK.

S.R. CEN/TS 15209:2008

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 15209

April 2008

ICS 11.180.30; 93.080.10

English Version

Tactile paving surface indicators produced from concrete, clay and stone

Surfaces tactiles d'indication au sol en béton, terre cuite et pierre naturelle

Taktile Bodenindikatoren gefertigt aus Beton, Ton und Stein

This Technical Specification (CEN/TS) was approved by CEN on 18 September 2007 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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

Ref. No. CEN/TS 15209:2008: E

Contents

page

Foreword

This document (CEN/TS 15209:2008) has been prepared by Technical Committee CEN/TC 178 “Paving units and kerbs”, the secretariat of which is held by BSI.

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.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this CEN Technical Specification: 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.

Introduction

The nature of visual impairment

The nature of visual loss varies considerably among individuals. Generally, the result of different eye conditions will lead to the following types of impairment:

— a limited field of vision, being unable to see to the sides or up and down;

— some loss of central vision limiting the ability to see fine detail;

— acute short-sightedness, seeing the world as a continuous blur;

— uncontrollable oscillations of the eyeball leading to an inability to see objects clearly;

— night blindness, a sensitivity to light and a tendency to be dazzled by glare.

Visually impaired people detect information about the environment by the use of non-visual features, for example, audible and tactile features. A loss of sight is not accompanied by an increase in the effectiveness of other non-visual senses. However, visually impaired people generally place more emphasis on information received via other senses, for example the sense of touch.

The use of tactile information

When moving around the pedestrian environment, visually impaired people, using a range of mobility equipment including the long cane, will actively seek and make use of paving surface tactile information, particularly detectable contrasts in surface texture.

The ability to detect contrasts in texture underfoot varies from one individual to another. For example, older visually impaired people and people who have lost their sight through certain medical conditions, such as diabetes, may well have reduced sensitivity in their feet.

It is important that tactile warning of potential hazards, e.g. a road crossing or a stair, are rigorous enough to be detectable by most people but without constituting a trip hazard or causing extreme discomfort.

Considering the walking speed and the length of one step by a visually impaired pedestrian, the ‘width’ of any warning surface is a critical parameter.

The importance of luminance contrast

In addition to tactile information those visually impaired people who have some residual vision will also make use of the luminance contrast between surfaces for orientation and guidance. Those characteristics can therefore be used by designers, planners, engineers and others involved in the design of the built and pedestrian environments to accentuate the presence of hazards and amenities.

This Technical Specification cannot deal with luminance contrast since it relies on the difference between adjacent surfaces which need not both be tactile surfaces. However, manufacturers should be aware of this issue in considering the range of colour and tones they provide in their tactile products.