
British Standard

Ceramic floor and wall tiles

Part 13. Method for determination of scratch hardness of surface according to Mohs

Carreaux et dalles céramiques pour sols et murs

Partie 13. Détermination de la dureté superficielle suivant l'échelle de Mohs

Keramische Fliesen und Platten für Bodenbeläge und Wandbekleidungen

Teil 13. Bestimmung der Ritzhärte der Oberfläche nach Mohs

The European Standard EN 101 has the status of a British Standard.

Contents

| | Page |
|---------------------------|--------------------|
| National foreword | Inside front cover |
| Brief history | 2 |
| National appendix A | Inside back cover |
| Cooperating organizations | Back cover |

Method

| | |
|----------------------------------|---|
| 1 Scope and field of application | 3 |
| 2 Principle | 3 |
| 3 Test minerals | 3 |
| 4 Test specimens | 3 |
| 5 Procedure | 3 |
| 6 Test report | 3 |

National foreword

This Part of this British Standard has been prepared under the direction of the Clay Products Standards Committee and is the English language version of EN 101 'Ceramic tiles. Determination of scratch hardness according to Mohs' published by the European Committee for Standardization (CEN).

EN 101 was produced as a result of international discussion in which the UK took an active part.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

www.docin.com



Amendment No. 1
published and effective from 15 July 1992
to BS 6431 : Part 13 : 1986

Ceramic floor and wall tiles
Part 13. Method for determination of scratch
hardness of surface according to Mohs

NOTE. This amendment implements EN 101 : 1991 as a British Standard. The technical text of EN 101 : 1991 is identical to that of the 1984 edition which was implemented as BS 6431 : Part 13 : 1986.

Revised text

AMD 7102
July 1992

Front and back covers

In the top right-hand corner and at the foot of the front cover, and twice on the back cover, after 'EN 101' insert ': 1991'.

AMD 7102
July 1992

National foreword

In paragraph 1, line 2, after 'EN 101' insert ': 1991'.

AMD 7102
July 1992

New EN title page and foreword

Delete the existing EN title page and brief history and substitute the attached new EN title page and foreword.

AMD 7102
July 1992

Page 3

Delete the existing shoulder head and substitute the following.

' Page 3
EN 101 : 1991'

AMD 7102
July 1992

Back cover

Delete the existing list of cooperating organizations and substitute the following.

| | |
|----------------|------------------------------------------------------|
| 'Austria | Oesterreichisches Normungsinstitut |
| Belgium | Institut belge de normalisation |
| Denmark | Dansk Standardiseringsraad |
| Finland | Suomen Standardisoimislaito, r.y. |
| France | Association française de normalisation |
| Germany | Deutsches Institut für Normung e.V. |
| Greece | Hellenic Organization for Standardization |
| Iceland | Technological Institute of Iceland |
| Ireland | National Standards Authority of Ireland |
| Italy | Ente Nazionale Italiano di Unificazione |
| Luxembourg | Inspection du Travail et des Mines |
| Netherlands | Nederlands Normalisatie-instituut |
| Norway | Norges Standardiseringsforbund |
| Portugal | Instituto Português da Qualidade |
| Spain | Asociación Española de Normalización y Certificación |
| Sweden | Standardiseringskommissionen i Sverige |
| Switzerland | Association suisse de normalisation |
| United Kingdom | British Standards Institution' |

doc in 豆丁

UDC 666.635:691.443-41-033.6:620.178.143.3

Descriptors: tiles, coating slabs, ceramic coating, tests, hardness tests, scratch hardness tests

English version

Ceramic tiles – Determination of scratch hardness of surface according to Mohs

Carreaux et dalles céramiques –
Détermination de la dureté superficielle
suivant l'échelle de Mohs

Keramische Fliesen und Platten –
Bestimmung der Ritzhärte der Oberfläche
nach Mohs

This European Standard was approved by CEN on 1991-07-17. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard was drawn up by the Technical Committee CEN/TC 67 'Ceramic tiles' the Secretariat of which is held by UNI.

This European Standard was adopted by CEN on the strength of its acceptance by the following member countries:

Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

www.docin.com

UDC: 666.635:691.433-41-033.6:620.178.143.3

Key words: tiles, coating slabs, ceramic coatings, tests, hardness tests, scratch hardness tests

English version

Ceramic tiles Determination of scratch hardness of surface according to Mohs

Carreaux et dalles céramiques – Détermination
de la dureté superficielle suivant l'échelle de Mohs

Keramische Fliesen und Platten – Bestimmung der
Ritzhärte der Oberfläche nach Mohs

This European Standard was accepted by CEN on 1984-10-17. CEN members are bound to comply with the requirements of CEN 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 Central Secretariat 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 CEN Central Secretariat has the same status as the official versions.

CEN members are the national standards organizations of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue Bréderode 2, B-1000 Brussels

Brief history

This European Standard was drawn up by the Technical Committee CEN/TC 67 'Ceramic tiles', the Secretariat of which is held by UNI.

This European Standard was adopted by CEN on the strength of its acceptance by the following Member countries:

France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Switzerland, United Kingdom.

During the meeting of the Technical Committee held at Munich on 11 and 12 May 1982 it was decided to consider an amendment before official distribution of the standard.

This amendment was incorporated in the text of the European Standard on the strength of its acceptance by the following Member countries:

France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Switzerland, United Kingdom.

www.docin.com

1 Scope and field of application

This European Standard defines a method of test for determining the scratch hardness of the surface of all ceramic tiles.

2 Principle

Determination of the scratch hardness on Mohs' scale by drawing certain minerals of defined hardness by hand over the surface.

3 Test minerals

| | Mohs' hardness |
|-----------|----------------|
| Talc | 1 |
| Gypsum | 2 |
| Calcite | 3 |
| Fluorspar | 4 |
| Apatite | 5 |
| Felspar | 6 |
| Quartz | 7 |
| Topaz | 8 |
| Corundum | 9 |
| Diamond | 10 |

4 Test specimens

A minimum of three tiles shall be tested.

5 Procedure

Place the tile under test on a firm support with the glazed or proper surface uppermost.

Draw over the surface to be tested, by hand, a sharp freshly-broken edge of the reference mineral applying a uniform effort such that at the end of the test, its edge or the tile surface is intact.

Repeat this procedure four times with a sharp freshly-broken edge of the reference mineral.

Repeat the procedure for each tile with each mineral that is necessary to obtain a result.

Examine the tiles for scratches by the naked eye, with the aid of spectacles if usually worn.

For each tile note the mineral of highest Mohs' hardness that produces no more than one scratch.

In the case of tiles having variable scratch hardness note the lowest Mohs' hardness.

6 Test report

Report with reference to this European Standard:

- (a) a description of the tiles;
- (b) the Mohs' hardness of each test specimen.

doc in 豆丁

National appendix A

The United Kingdom participation in the preparation of this European Standard was entrusted by the Clay Products Standards Committee (CLB/-) to Technical Committee CLB/2 upon which the following bodies were represented:

British Ceramic Research Association
British Ceramic Tile Council
British Standards Society
Builders' Merchants' Federation
Building Employers Confederation
Incorporated Association of Architects and Surveyors
National Federation of Clay Industries
National Master Tile Fixers' Association
National Tile, Faience and Mosaic Fixers' Society
Royal Institute of British Architects

www.docin.com

BS 6431 : Part 13 : 1986

EN 101

This British Standard was published under the authority of the Board of BSI and comes into effect on 28 February 1986.

© British Standards Institution, 1986

ISBN 0 580 15066 6

British Standards Institution

Incorporated by Royal Charter, BSI is the independent national body for the preparation of British Standards. It is the UK member of the International Organization for Standardization and UK sponsor of the British National Committee of the International Electrotechnical Commission.

Copyright

Users of British Standards are reminded that copyright subsists in all BSI publications. No part of this publication may be reproduced in any form without the prior permission in writing of BSI. This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols and size, type or grade designations. Enquiries should be addressed to the Publications Manager, British Standards Institution, Linford Wood,

Milton Keynes MK14 6LE. The number for telephone enquiries is 0908 320033 and for telex 825777.

Contract requirements

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Revision of British Standards

British Standards are revised, when necessary, by the issue either of amendments or of revised editions. **It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.** Information on all BSI publications is in the *BSI Catalogue*, supplemented each month by *BSI News* which is available to subscribing members of the Institution and gives details of new publications, revisions, amendments and withdrawn standards. Any person who, when making use of a British Standard, encounters an inaccuracy or ambiguity, is requested to notify BSI without delay in order that the matter may be investigated and appropriate action taken.

The following BSI references relate to the work on this standard:
Committee reference CLB/2 Draft for comment 77/12630 DC

Cooperating organizations

The European Committee for Standardization, under whose supervision this European Standard was prepared, comprises the national standards organizations of the following Western European countries.

| | |
|----------------|-------------------------------------------|
| Austria | Oesterreichisches Normungsinstitut |
| Belgium | Institut belge de normalisation |
| Denmark | Dansk Standardiseringsraad |
| Finland | Suomen Standardisoimisiiti, r.y. |
| France | Association française de normalisation |
| Germany | Deutsches Institut für Normung e.V. |
| Greece | Hellenic Organization for Standardization |
| Ireland | National Standards Authority of Ireland |
| Italy | Ente Nazionale Italiano di Unificazione |
| Netherlands | Nederlands Normalisatie-instituut |
| Norway | Norges Standardiseringsforbund |
| Portugal | Direcção-Geral da Qualidade |
| Spain | Instituto Español de Normalización |
| Sweden | Standardiseringskommissionen i Sverige |
| Switzerland | Association suisse de normalisation |
| United Kingdom | British Standards Institution |

Amendments issued since publication

| Amd. No. | Date of issue | Text affected |
|----------|---------------|---------------|
| | | |
| | | |
| | | |
| | | |
| | | |

British Standards Institution · 2 Park Street London W1A 2BS · Telephone 01-629 9000 · Telex 266933