

BS EN 1024:2012



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Clay roofing tiles for discontinuous laying — Determination of geometric characteristics

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National foreword

This British Standard is the UK implementation of EN 1024:2012. It supersedes BS EN 1024:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/542/3, Clay roofing tiles.

A list of organizations represented on this committee can be obtained on request to its secretary.

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EN 1024

March 2012

ICS 91.100.25

Supersedes EN 1024:1997

English Version

**Clay roofing tiles for discontinuous laying - Determination of
geometric characteristics**

Tuiles de terre cuite pour pose en discontinu -
Détermination des caractéristiques géométriques

Tondachziegle für überlappende Verlegung - Bestimmung
der geometrischen Kennwerte

This European Standard was approved by CEN on 22 January 2012.

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Foreword

This document (EN 1024:2012) has been prepared by Technical Committee CEN/TC 128 “Roof covering products for discontinuous laying and products for wall cladding”, the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by September 2012, and conflicting national standards shall be withdrawn at the latest by September 2012.

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 supersedes EN 1024:1997.

This European Standard is one of the series of standards dealing with clay roofing tiles as listed below:

- EN 1304, *Clay roofing tiles and fittings — Products definitions and specifications*
- EN 538, *Clay roofing tiles for discontinuous laying — Flexural strength test*
- EN 539, *Clay roofing tiles for discontinuous laying — Determination of physical characteristic*

This European Standard includes:

- an informative annex

Figure A.1 – Example of twist measurement device for tiles with sidelock and headlock, tiles with sidelock only and overlapping tiles.

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, Croatia, 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, Turkey and the United Kingdom.

1 Scope

This European standard specifies the methods for determining the geometric characteristics of clay tiles as defined in EN 1304, *Clay roofing tiles and fittings — Product definitions and specifications*.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1304, *Clay tiles and fittings — Product definitions and specifications*

3 Symbols

L_1	maximum distance when measuring covering dimensions (length) in millimetres (mm);
L_2	minimum distance when measuring covering dimensions (length) in millimetres (mm);
l_1	maximum distance when measuring covering dimensions (width) in millimetres (mm);
l_2	minimum distance when measuring covering dimensions (width) in millimetres (mm);
L	mean cover length in millimetres (mm);
L_M	maximum cover length in millimetres (mm);
l	mean cover width in millimetres (mm);
l_M	maximum cover width in millimetres (mm);
H	difference in height from the measuring point at the support bar or height in relation to a reference plane in millimetres (mm);
C	twist coefficient in percent;
A	tile length as declared by the manufacturer in millimetres (mm);
B	tile width as declared by the manufacturer in millimetres (mm);
h_d	height of camber as declared by the manufacturer in millimetres (mm);
h_m	measured height of camber in millimetres (mm);
R	camber in percentage;
Δh	$ h_m - h_d $ absolute value in millimetres (mm);
L_T	total length of the tile in millimetres (mm);
l_T	total width of the tile in millimetres (mm);
L_A	measurement base in longitudinal direction in millimetres (mm);
L_B	measurement base in transverse direction in millimetres (mm);
E_1	distance between the internal edges of an over - and under- tile at one of its extremities in millimetres (mm);
E_2	distance between the internal edges of an over - and under- tile at the other extremity in millimetres (mm).

4 Test pieces

The measurement of geometric characteristics are carried out on 10 test pieces, each of which constitutes a whole tile, except for the measurement of cover dimensions, which requires 24 tiles.

5 Tests methods

5.1 Determination of dimensional characteristics

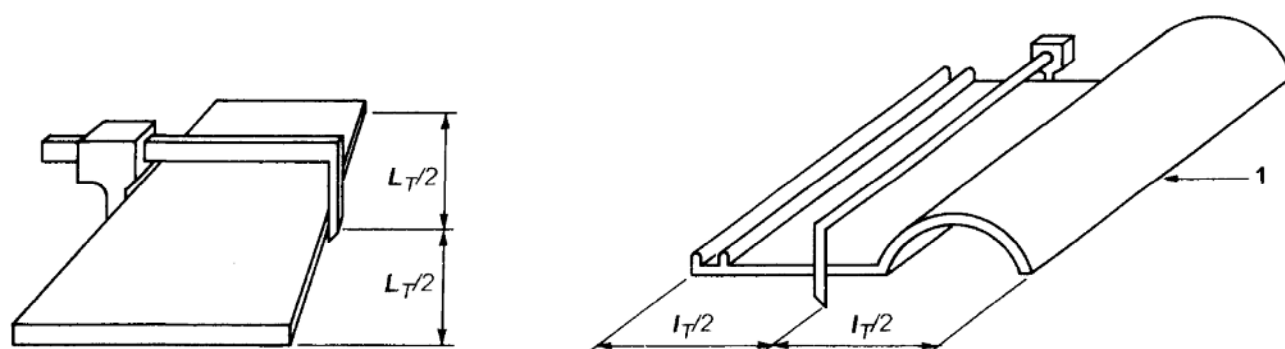
5.1.1 Individual dimensions¹⁾

5.1.1.1 Apparatus

The tests are made with a measuring apparatus with a precision of at least one millimetre.

5.1.1.2 Procedure

After removing any surplus clay from the edges, the measurements shall be taken, both transversely and longitudinally along the centre of the tile unless another measuring position has been specified by the manufacturer (see Figure 1). The dimensions are expressed to the nearest whole millimetre.



Key

1 tile

Figure 1 – Principle for measuring individual dimensions

5.1.1.3 Expression of results

The arithmetic means of the lengths and widths of the 10 tested tiles and the differences expressed as a percentage of these mean values in relation to the values A and B declared by the manufacturer shall be calculated and noted in the test report.

1) EN 1304 specifies to which type of tiles these measurements apply.