BRITISH STANDARD

BS EN
1848-2:2001

Flexible sheets for waterproofing — Determination of length, width, straightness and flatness —

Part 2: Plastic and rubber sheets for roof waterproofing

The European Standard EN 1848-2:2001 has the status of a British Standard

ICS 83.140.10; 91.100.50

National foreword

This British Standard is the official English language version of EN 1848-2:2001.

The UK participation in its preparation was entrusted by Technical Committee B/546, Flexible sheets for waterproofing, to Subcommittee B/546/2, Roof sheeting and sealing sheeting, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

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

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This British Standard, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 July 2001

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Flexible sheets for waterproofing — Determination of length, width, straightness and flatness — Part 2: Plastic and rubber sheets for roof waterproofing

Feuilles souples d'étanchéité — Détermination de la longueur, de la largeur, de la rectitude et de la planéité — Partie 2: Feuilles d'étanchéité de toiture plastiques et élastomères

Abdichtungsbahnen — Bestimmung der Länge, Breite, Geradheit und Planlage — Teil 2: Kunststoff- und Elastomerbahnen für Dachabdichtungen

This European Standard was approved by CEN on 2 June 2000.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 254, Flexible sheets for waterproofing, the Secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by November 2001, and conflicting national standards shall be withdrawn at the latest by July 2002.

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

Introduction

This European Standard is intended for characterization of plastic and rubber sheets as manufactured or supplied before use. This test method relates exclusively to products or to their components where appropriate, and not to waterproofing membrane systems composed of such products and installed in the works.

This test is intended to be used in conjunction with European Standard, *Definition and Characteristics*, for plastic and rubber sheets for roof waterproofing.

1 Scope

This European Standard specifies methods for the determination of length, width, straightness and flatness of plastic and rubber sheets for roof waterproofing supplied in rolls.

2 Normative references

This European Standard incorporates, by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest editions of the publication referred to apply (including amendments).

EN 13416, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Rules for sampling.*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

3.1
length
dimension of the roll measured in the manufacturing direction

3.2
width
dimension of the roll measured at right angles to the manufacturing direction

3.3
straightness
deviation of the longitudinal edge of the roll from a straight line

3.4
flatness
deviation of the top surface of the roll from a flat plane when it is unrolled and laid out on a flat surface

4 Sampling

Test samples shall be taken in accordance with EN 13416.

5 Determination of length

5.1 Reference method

5.1.1 Apparatus

Flat surface, e.g. table or floor, not less than 10 m long and at least as wide as the roll to be tested. Both longitudinal edges of the surface shall be marked off at 1 m lengths, at least one of these lengths, preferably at one end of the surface, being subdivided into 1 mm divisions allowing measurement of the roll to an accuracy of ±5 mm at the specified temperature.

5.1.2 Procedure

Mark the cut end of the roll, if necessary, so that it is at right angles to the length direction of the roll, such marking being confined to the minimum, which is necessary to effect this. With the marked end of the roll aligned to the zero mark on the surface (5.1.1), unroll the material along the surface so that no tension is introduced at a temperature of (23 ± 5)°C. On reaching the limit of the surface, mark the back of the roll by some suitable method on both edges to coincide with a known length. Re-roll the portion that has been measured. Lay out, free from tension, a further portion of the unmeasured length and measure from the marked edges as before. Repeat this process until the end of the roll is reached, marking this, if necessary, as before. Measure the final length to the nearest 5 mm.

5.2 Alternative method

As an alternative to the manual technique as described in 5.1, any suitable mechanical, electromechanical or photoelectric means of measuring the length that gives results equivalent to these obtained using the method in 5.1 may be used. In cases of dispute the reference method in 5.1 shall be used.

5.3 Expression of results

Report the length of the roll, in metres, as the sum of all the readings, rounded to the nearest 10 mm.

6 Determination of width

6.1 Apparatus

6.1.1 Flat surface, e.g. table or floor not less than 10 m long and at least as wide as the roll to be tested.

6.1.2 Measuring tape or rule of length greater than the width of the roll to be measured, permitting measurements to be made to the nearest 1 mm at the specified temperature.

6.2 Procedure

While the roll is unrolled on the surface (6.1.1) and free of tension using the measuring device (6.1.2), measure and record, at intervals of 10 m, at a temperature of (23 ± 5)°C, the width of the roll to the nearest 1 mm. Ensure that all measurements of width are taken at right angles to the longitudinal direction of the roll.

For rolls less than 20 m long, measure the width at three positions, i.e. near the two ends and in the middle of the roll.

6.3 Expression of results

Calculate the mean of the recorded widths and report the value obtained as the average width to the nearest 1 mm. Report also the minimum width recorded.

7 Determination of straightness and flatness

7.1 Apparatus

7.1.1 Flat surface, e.g. table or floor, not less than 10 m long and at least as wide as the roll to be tested.

7.1.2 Measuring device, capable of measuring the distance g and p to an accuracy of 1 mm at the specified temperature.

7.2 Procedure

Unroll the roll along the surface so that no tension is introduced at a temperature of (23 ± 5)°C over a length of at least the first 10 m. After (30 ± 5) min measure the straightness as the maximum distance g, in mm, between the edge of the roll and the straight line AB (10 m) (see Figure 1).

Measure the flatness as the maximum distance p, in mm, between the top of the edge undulations and the flat surface.

7.3 Expression of results

Report the straightness and the flatness of the roll as distances ($g - 100$) and p, in mm, measured in 7.2, rounded to the nearest 10 mm.

Dimensions in millimetres

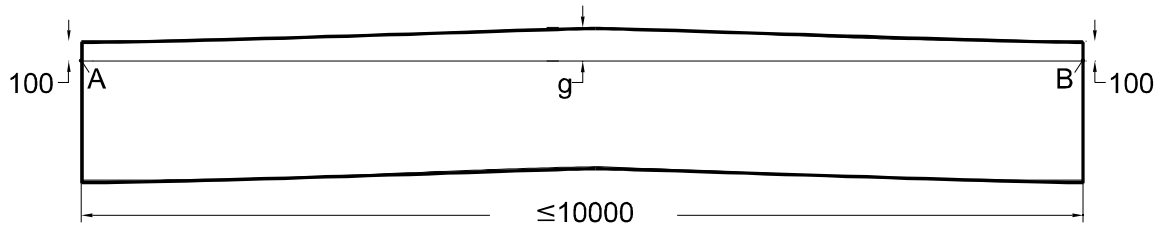

Figure 1 — Principle of straightness measurement

8 Precision of the test methods

No information is available at this time.

9 Test report

The test report shall contain at least the following information:

a) a reference to this European Standard (EN 1848-2) and any deviation from it;
b) all details necessary to identify the product tested;
c) the length of the roll in m;
d) the individual measured values of the width in m;
e) the average width in m;
f) the straightness, g, in mm;
g) the flatness, p, in mm;
h) any non-standard procedures and any peculiarities encountered during testing;
i) the date of testing.

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