

# Flexible sheets for waterproofing — Determination of visible defects —

## Part 1: Bitumen sheets for roof waterproofing

The European Standard EN 1850-1:1999 has the status of a  
British Standard

ICS 91.100.50

## National foreword

This British Standard is the official English language version of EN 1850-1:1999.

The UK participation in its preparation was entrusted to Technical Committee B/546, Flexible sheets for roofing, 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 committee can be obtained on request to its secretary.

### Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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.

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

### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 4, an inside back cover and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

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 February 2000

© BSI 02-2000

### Amendments issued since publication

Amd. No.	Date	Comments

ISBN 0 580 35742 2

ICS 91.100.50

English version

## Flexible sheets for waterproofing - Determination of visible defects - Part 1: Bitumen sheets for roof waterproofing

Feuilles souples d'étanchéité- Détermination de défauts  
d'aspect - Partie 1: Feuilles d'étanchéité de toiture  
bitumineuses

Abdichtungsbahnen - Bestimmung sichtbarer Mängel -  
Teil 1: Bitumenbahnen für Dachabdichtungen

This European Standard was approved by CEN on 30 September 1999.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

## Contents

	Page
Foreword	3
1 Scope	3
2 Normative references	3
3 Definitions	3
4 Principle	3
5 Sampling and preparation of test specimens	3
6 Procedure	4
7 Test report	4

## 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 May 2000, and conflicting national standards shall be withdrawn at the latest by September 2001.

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.

## 1 Scope

This European Standard specifies the determination of the visible defects of bitumen sheets for roofing, which could influence the functional behaviour of these sheets.

## 2 Normative references

This European Standard incorporates by dated or undated reference, 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 these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 13416<sup>1)</sup>

Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Rules for sampling

## 3 Definitions

For the purpose of this standard, the definitions indicated in **3.1** to **3.4** apply.

**3.1 blister** an elevation of the surface of varied contour and dimensions, with a cavity beneath it

**3.2 crack** a fissure that penetrates the external surface of the material or its entire thickness, the bitumen material being completely separated between the walls of the fissure

**3.3 hole** an opening through the sheet which would allow the passage of water

**3.4 naked spots**<sup>1)</sup> a missing area of mineral surface exceeding 100 mm<sup>2</sup>

## 4 Principle

A selected roll of bitumen sheet is unrolled on a flat surface and examined for visible defects.

---

<sup>1)</sup> Standard in preparation.

<sup>2)</sup> Only for mineralized cap sheets.

## 5 Sampling and preparation of test specimens

### 5.1 Sampling

A complete undamaged roll of the bitumen sheet to be tested shall be selected in accordance with prEN 13416.

### 5.2 Conditioning of specimens

Generally no ageing or conditioning shall be carried out and examinations shall be made under ambient conditions.

In case of dispute, the examinations should be carried out at  $(23 \pm 2)$  °C after conditioning for at least 20 h at  $(23 \pm 2)$  °C.

## 6 Procedure

The selected roll shall be laid on a flat surface. The sheet is carefully unrolled, top surface uppermost and examined over the whole surface, with the naked eye, for the presence of blisters, cracks, holes or naked spots or any other noticeable defect. The sheet is then carefully turned over and examined on the underside for visible defects.

## 7 Test report

The test report shall include at least the following information:

- a) all details necessary to identify the product tested;
- b) a reference to this European Standard (EN 1850-1) and any deviation from it;
- c) information on sampling and preparation of test specimens in accordance with clause 5;
- d) visible defects in accordance with clause 6;
- e) date of the test.



---

## BSI — British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

### Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the technical committee responsible, the identity of which can be found on the inside front cover. Tel: 020 8996 9000. Fax: 020 8996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

### Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services. Tel: 020 8996 9001. Fax: 020 8996 7001.

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

### Information on standards

BSI provides a wide range of information on national, European and international standards through its Library and its Technical Help to Exporters Service. Various BSI electronic information services are also available which give details on all its products and services. Contact the Information Centre. Tel: 020 8996 7111. Fax: 020 8996 7048.

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Membership Administration. Tel: 020 8996 7002. Fax: 020 8996 7001.

### Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from 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. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

If permission is granted, the terms may include royalty payments or a licensing agreement. Details and advice can be obtained from the Copyright Manager. Tel: 020 8996 7070.