

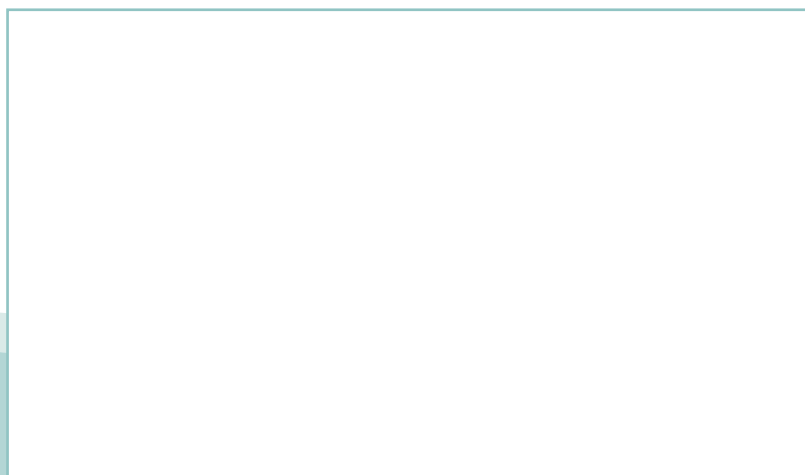
SVENSK STANDARD

SS-EN 1847:2009

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Flexibla tätskikt – Plast- och gummibaserade tätskikt för tak – Metod för påverkan från flytande kemikalier, inklusive vatten

**Flexible sheets for waterproofing – Plastics and rubber sheets for
roof waterproofing – Methods for exposure to liquid chemicals,
including water**



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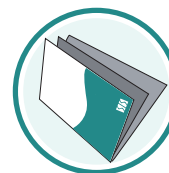
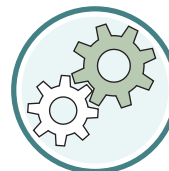
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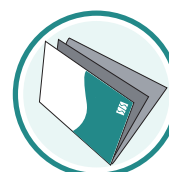
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This standard supersedes the Swedish Standard SS-EN 1847, edition 1.

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EUROPEAN STANDARD

EN 1847

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2009

ICS 91.100.50

Supersedes EN 1847:2001

English Version

**Flexible sheets for waterproofing - Plastics and rubber sheets for
roof waterproofing - Methods for exposure to liquid chemicals,
including water**

Feuilles souples d'étanchéité - Feuilles d'étanchéité de
toiture plastiques et élastomères - Méthodes d'exposition
aux produits chimiques liquides y compris l'eau

Abdichtungsbahnen - Kunststoff- und Elastomerbahnen für
Dachabdichtungen - Bestimmung der Einwirkung von
Flüssigchemikalien einschließlich Wasser

This European Standard was approved by CEN on 19 October 2009.

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

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Foreword

This document (EN 1847:2009) 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 June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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 1847:2001.

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Introduction

This European Standard is intended for characterisation and /or classification 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 EN 13956, *Flexible sheet for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*.

Only testing by immersion of the entire surface of the test specimen is considered.

The methods for determination of changes in properties are specified as follows:

- a) changes in mass immediately after immersion or after immersion and drying;
- b) changes in appearance immediately after immersion or after immersion and drying;
- c) changes in physical properties (changes of tensile properties) immediately after immersion or after immersion and drying.

Tests immediately after immersion are used when it is required to ascertain the state of the material while still acted upon by the liquid.

Tests after immersion and drying are used when it is required to ascertain the state of the material after the liquid, if it is volatile, has been eliminated.

1 Scope

This European Standard specifies a method of exposing test specimens of plastic and rubber sheets for roofing, free from all external restraint, to liquid chemicals (including water), and methods for determining the changes in properties resulting from such exposure.

2 Normative references

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

EN 1849-2, *Flexible sheets for waterproofing — Determination of thickness and mass per unit area — Part 2: Plastic and rubber sheets for roof waterproofing*

EN 12311-2, *Flexible sheets for waterproofing — Determination of tensile properties — Part 2: Plastic and rubber sheets for roof waterproofing*

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

EN ISO 175:2000, *Plastics — Methods of test for the determination of the effects of immersion in liquid chemicals (ISO 175:1999)*

3 Terms and definitions

For the purposes of this document no additional terms and definitions are required.

4 Principle

Complete immersion of the test specimens in a specified quantity of a test liquid for a specified time and at a specified temperature. Determination of the properties before and after immersion and, if applicable, after drying. In the latter case the determinations are made, if possible, one after the other on the same specimens.

5 Apparatus

5.1 Container

Beakers of suitable dimensions and fitted with lids (airtight, if necessary, and fitted with condensers in the case of volatile liquids or those which give off vapours).

5.2 Enclosure

Enclosure which is thermostatically controlled at the test temperature.

5.3 Thermometer

Thermometer of suitable range and accuracy.

5.4 Weighing bottle

5.5 Balance

Balance which is accurate to within 0,001 g in the case of specimens of mass equal to or greater than 1 g.

5.6 Ventilated oven

The temperature calibration procedure is described in A.1 and details on the air flow are given in A.2. For drying purposes, the oven shall be controlled at (50 ± 2) °C.

6 Sampling

Samples shall be taken in accordance with EN 13416.

7 Preparation of test specimens

Depending on the proposed test after exposure (mass, physical properties) and the nature of the plastic or rubber roof waterproofing sheet, the specimens will be of very diverse shapes and dimensions.

For sheets with an inner layer or reinforcement it is recommended to seal the edges of the specimens before immersion in a test liquid.

The number of specimens to be used will be specified by the methods to determine the properties before and after exposure. In the absence of any other instructions, at least three specimens shall be tested.

Condition the test specimens, prior to testing, for at least 24 h in a standard atmosphere of (23 ± 2) °C and (50 ± 5) % relative humidity.

8 Procedure

8.1 Test liquids

If information is required about the behaviour of the sheet in contact with a specific liquid that liquid shall, wherever possible, be used.

The test shall be carried out with defined chemical products, used on their own or as a mixture; the test should be as representative as possible of the effect on the waterproofing sheets.

For general evaluations of materials behaviour when exposed to aqueous liquids the specimens shall be stored in aqueous solutions as shown in Table 1 as specified in Table A.1 of EN ISO 175:2000.