



BSI Standards Publication

**Polymer modified
bituminous thick coatings
for waterproofing —
Determination of dimensional
stability at high temperature**

National foreword

This British Standard is the UK implementation of EN 15818:2011.

The UK participation in its preparation was entrusted to Technical Committee B/546, Flexible sheets for waterproofing and water vapour control.

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

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English Version

Polymer modified bituminous thick coatings for waterproofing - Determination of dimensional stability at high temperature

Revêtements bitumineux épais modifiés aux polymères
pour imperméabilisation - Détermination de la stabilité
dimensionnelle à haute température

Kunststoffmodifizierte Bitumendickbeschichtungen zur
Bauwerksabdichtung - Bestimmung der Maßbeständigkeit
bei hohen Temperaturen

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Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Principle.....	4
5 Apparatus	4
6 Test specimens	5
7 Preparation	5
8 Procedure	5
9 Expression of results	5
10 Test report	5

Foreword

This document (EN 15818:2011) has been prepared by Technical Committee CEN/TC 361 "Project Committee — Polymer modified bituminous thick coatings for waterproofing — Definitions/requirements and test methods", the secretariat of which is held by DIN.

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1 Scope

This European Standard specifies a procedure for determining the dimensional stability at a high temperature of polymer modified bituminous thick coatings for waterproofing.

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.

FprEN 15814:2011, *Polymer modified bituminous thick coatings for waterproofing — Definitions and requirements*

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in FprEN 15814:2011 and the following apply.

3.1 coating system

bitumen coating material to be applied to the substrate

3.2 flow resistance

stability of polymer modified bituminous thick coating specimens to be suspended vertically with a temperature of (70 ± 2) °C without its coating moving

3.3 metal plate

plate to which a bitumen coating is applied

4 Principle

After coating the substrate, the specimen is given in a defined temperature of a period of at least 2 h in a vertical position.

After that time a visual judgement is made whether there are changes of the coating.

5 Apparatus

5.1 Drying oven.

5.2 **Metal plates** with a size of approximately 100 mm × 100 mm.

5.3 **Device (or support)**, that allows a vertical position of the metal plates.

6 Test specimens

Two specimens with a size of approximately 100 mm × 100 mm.

7 Preparation

The metal plate and the components of the polymer bitumen-emulsion shall be conditioned prior the preparation in a normal climate of (23 ± 2) °C and a relative humidity of (50 ± 5) % in accordance with ISO 554. The metal plate has to be kept free from any contamination.

To provide the specified dry layer thickness the wet coating has to be levelled off with the help of a frame or gauge of the metal plate at room temperature as specified by the manufacturer's instructions.

The thickness of the wet layer shall be such as the thickness of the dry layer is $(3 \pm 0,3)$ mm.

The preparation is to be done without any reinforcement.

Then the specimens shall be left in a normal climate of (23 ± 2) °C and a relative humidity of (50 ± 2) % for 28 days.

8 Procedure

After 28 days the test specimens shall be placed in a vertical position in a drying oven with a temperature of (70 ± 2) °C for a period of at least 2 h.

9 Expression of results

After the required period with a visual judgement the specimens has to be controlled whether there are any changes on the coating surface as

- drain down of the coating, and
- slide down of the coating.

10 Test report

The test report shall include at least the following information:

- a) a reference to this European Standard (i.e. EN 15818);
- b) all details needed to identify the product tested;
- c) test procedure including:
 - wet layer thickness;
 - dry layer thickness;
 - test temperature;
 - any deviations from the test conditions;

- d) the test results in accordance with Clause 9;
- e) the date of the tests.

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BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

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