



BSI Standards Publication

**Flexible sheets for waterproofing –
Extrapolation rules for testing results
on resistance to root penetration**

National foreword

This Published Document is the UK implementation of CEN/TS 17986:2023.

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 committee manager.

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English Version

Flexible sheets for waterproofing - Extrapolation rules for testing results on resistance to root penetration

Feuilles souples d'étanchéité - Règles d'extrapolation des résultats d'essai pour la résistance à la pénétration des racines

Abdichtungsbahnen - Extrapolationsregeln für die Durchwurzelung

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European foreword

This document (CEN/TS 17986:2023) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

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1 Scope

Experience with testing in accordance with EN 13948 has shown that flexible sheets for waterproofing with different thicknesses, different colours, different formulations, different surface finishing, and different internal fabrics, amongst others, have passed the test successfully.

This document expresses the extrapolation rules of the results of root resistance testing in accordance with EN 13948 for roof waterproofing sheets manufactured in accordance with EN 13707:2004+A2:2009, and EN 13956:2012.

Experience with testing in accordance to EN 13948 has shown that the main critical points are represented by the joints. If joints are done in a proper way, it will avoid the penetration of roots during the test.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12316-2, *Flexible sheets for waterproofing — Determination of peel resistance of joints — Part 2: Plastic and rubber sheets for roof waterproofing*

EN 12317-2, *Flexible sheets for waterproofing — Determination of shear resistance of joints — Part 2: Plastic and rubber sheets for roof waterproofing*

EN 13707:2004+A2:2009, *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*

EN 13948, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing - Determination of resistance to root penetration*

EN 13956:2012, *Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

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

EN 1928, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at <http://www.electropedia.org/>

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

mechanical barrier

layer providing the penetration protection