

Bituminous mixtures - Test methods - Part 48:
Interlayer Bonding

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EUROPEAN STANDARD

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English Version

Bituminous mixtures - Test methods - Part 48: Interlayer Bonding

Mélanges bitumineux - Méthodes d'essai - Partie 48:
Lien de couches

Asphalt - Prüfverfahren - Teil 48: Schichtenverbund

This European Standard was approved by CEN on 16 August 2021.

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European foreword

This document (EN 12697-48:2021) has been prepared by Technical Committee CEN/TC 227 “Road materials”, 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of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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1 Scope

This document specifies test methods for determining the bond strength between an asphalt layer and other newly constructed construction layers or existing substrates in road or airfield pavements. The tests can also be applied on laboratory prepared interlayers.

The normative tests described in this document are:

- Torque Bond Test (TBT), generally applicable to any layer thicknesses;
- Shear Bond Test (SBT), generally applicable to layer thicknesses > 15 mm;
- Tensile Adhesion Test (TAT), generally applicable to layer thicknesses ≤ 15 mm.

NOTE Further non normative test methods are described in informative annexes:

- Annex A (informative) - Compressed Shear Bond Test (CSBT);
- Annex B (informative) - Alternative Shear Bond Test (ASBT);
- Annex C (informative) - Layer Adhesion Measuring Instrument (LAMI).

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 12697-27, *Bituminous mixtures — Test methods — Part 27: Sampling*

EN 12697-29, *Bituminous mixtures — Test methods — Part 29: Determination of the dimensions of a bituminous specimen*

EN 12697-33, *Bituminous mixtures — Test methods — Part 33: Specimen prepared by roller compactor*

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 <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

peak shear stress of the interface

$\tau_{\text{SBT,max}}$

maximum value of shear stress [MPa] determined as the maximum force F divided by the initial cross sectional area A , of a specimen when tested as described in this document

3.2

displacement at peak shear stress

$\delta_{\text{SBT,max}}$

displacement at the maximum value of shear stress of a specimen when tested as described in this document