

STN P	Asfaltové zmesi Skúšobné metódy Časť 51: Skúška povrchovej pevnosti v šmyku	STN P CEN/TS 12697-51 73 6160
------------------	--	---

Bituminous mixtures - Test methods - Part 51: Surface shear strength test

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/25

Táto predbežná slovenská technická norma je určená na overenie. Prípadné pripomienky pošlite do marca 2027 Úradu pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky.

Obsahuje: CEN/TS 12697-51:2025

140806



Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2025
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 12697-51

March 2025

ICS 93.080.20

Supersedes CEN/TS 12697-51:2017

English Version

**Bituminous mixtures - Test methods - Part 51: Surface
shear strength test**

Mélanges bitumineux - Méthodes d'essai - Partie 51 :
Essai de résistance de liaison au cisaillement

Asphalt - Prüfverfahren - Teil 51:
Scherfestigkeitsprüfung für Asphaltdecken

This Technical Specification (CEN/TS) was approved by CEN on 10 February 2025 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

CEN/TS 12697-51:2025 (E)

Contents	Page
European foreword	3
Introduction	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Principle	7
5 Apparatus	7
6 Materials	7
7 Procedure	8
7.1 Site.....	8
7.2 <i>In situ</i> procedure	8
7.3 Laboratory procedure	8
7.4 Conditioning procedure	10
8 Calculation and expression of results	10
9 Test report.....	10
10 Precision	11
Annex A (informative) Examples of typical failure modes.....	12
Annex B (informative) Examples of correction for temperatures	13
Bibliography	15

European foreword

This document (CEN/TS 12697-51:2025) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by BSI.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 12697-51:2017.

CEN/TS 12697-51:2025 includes the following significant technical changes with respect to CEN/TS 12697-51:2017:

- [ge] contradictory NOTES deleted or reworded to normal text;
- [Introduction] new Clause with general description of test. Explanatory NOTE added regarding comparison with EN 12697-48;
- [2] clarification of Scope. NOTE deleted and placed as normal text in Introduction;
- [5.3] deletion of temperature range for thermometer;
- [5.3] “accuracy” amended to “maximum permissible error”;
- [5.6] “accuracy” amended to “maximum permissible error”;
- [5.8] “accuracy” amended to “maximum permissible error”;
- [6.1] NOTE explaining rapid setting epoxy resins deleted and reworded to normal text to include also polyester resins for use as adhesives;
- [7.2.2] NOTE deleted;
- [7.2.3] clarified description of drilled hole for temperature measurement;
- [7.2.3] deletion of target temperature for the test. Range of 20 °C to 35°C for test introduced;
- [7.2.3] added reference to Annex A with examples of typical failure modes;
- [7.2.6] paragraph reworded in line with 7.3.13. Introduction of reference to Annex A;
- [7.3.2] paragraph 3 deleted as this test method is not called up in EN 13108-20 Type Testing- Paragraph 4 deleted as reinstating the core holes is out of the Scope;
- [7.3.5] corrected reference to 7.3.3;
- [8.3] deletion of Figure 1 including keys and NOTE. Added reference to new Annex B;
- [9] update of the contents in the test report;
- [Annex A] paragraph amended to include a failure mode for surfacing of a bituminous mixture. NOTE deleted as described in 7.2.6 and 7.3.13;

CEN/TS 12697-51:2025 (E)

- [Annex A] Figure A.1 amended to illustrate a failure mode for surfacing of a bituminous mixture. Photographs illustrating failure mode for Slurry Surfacing deleted as Slurry Surfacing is out of the Scope for this test method.
- [Annex B] introduction of new Annex with examples of correction for temperature;
- [Bibliography] introduced with reference to EN 12697-48.

A list of all parts in the EN 12697 series can be found on the CEN website.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

This test method was designed for use on airfield runways and taxiways. The main purpose of the test is to measure the robustness of asphalt surface courses against shearing.

NOTE EN 12697-48 includes an on-site torque bond test that uses the same test equipment. However, in this case the surface is cored to expose the interface to be tested. The torque applied to the top of unremoved core induces twisting shear failure at the interface only.

CEN/TS 12697-51:2025 (E)**1 Scope**

This document (CEN/TS 12697-51:2025) specifies a test method for measuring the surface shear strength for airfield surface courses.

The surface shear strength will depend on the depth of the surface course together with the properties of the surface course material.

The binder course material and any bonding agent applied between the two layers can have an influence on the test result for, in particular, ultra-thin surface course.

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*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN