SLOVENSKI STANDARD
SIST EN 12274-2:2018

01-maj-2018

Nadomešča:
SIST EN 12274-2:2004

Tankoplastne prevleke po hladnem postopku - Preskusne metode - 2. del: Ugotavljanje deleža ostankov veziva, vključno s pripravo vzorca

Slurry surfacing - Test methods - Part 2: Determination of residual binder content including preparation of samples

Dünne Asphaltschicht in Kaltbauweise - Prüfverfahren - Teil 2: Bestimmung des Bindemittelgehaltes einschließlich Probenvorbereitung

Matériaux bitumineux coulés à froid - Méthode d'essai - Partie 2 : Détermination de la teneur en liant résiduel y compris la préparation des échantillons

Ta slovenski standard je istoveten z: EN 12274-2:2018

ICS:

93.080.20	Materiali za gradnjo cest	Road construction materials

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EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 12274-2

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ICS 93.080.20

Supersedes EN 12274-2:2003

English Version

Slurry surfacing - Test methods - Part 2: Determination of residual binder content including preparation of samples

Matériaux bitumineux coulés à froid - Méthode d'essai - Partie 2: Détermination de la teneur en liant résiduel y compris la préparation des échantillons

Dünne Asphaltdeckschichten in Kaltbauweise - Prüfverfahren - Teil 2: Bestimmung des Bindemittelgehaltes einschließlich Probenvorbereitung

This European Standard was approved by CEN on 13 November 2017.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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European foreword

This document (EN 12274-2:2018) has been prepared by Technical Committee CEN/TC 227 "Road materials", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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 EN 12274-2:2003.

Compared with EN 12274-2:2003, the following changes have been made:

a) binder content by ignition is enabled using EN 12697-39;

b) an alternative method to oven-drying prior to binder extraction can be used with provision for collection of water during the solvent extraction process, as specified in EN 12697-1:2012, Annex B.

This European Standard is one of a series of standards as listed below:

— EN 12274-1, *Slurry surfacing – Test methods – Part 1: Sampling of slurry surfacing mixture*

— EN 12274-2, *Slurry surfacing – Test methods – Part 2: Determination of residual binder content including preparation of samples*

— EN 12274-3, *Slurry surfacing – Test methods – Part 3: Consistency*

— EN 12274-4, *Slurry surfacing – Test methods – Part 4: Determination of cohesion of the mix*

— EN 12274-5, *Slurry surfacing – Test methods – Part 5: Determination of the minimum binder content and wearing resistance*

— EN 12274-6, *Slurry surfacing – Test methods – Part 6: Rate of application*

— EN 12274-7, *Slurry surfacing – Test methods – Part 7: Shaking abrasion test*

— EN 12274-8, *Slurry surfacing – Test methods – Part 8: Visual assessment of defects*

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

1 Scope

This European Standard specifies test methods for determining the residual binder content of samples of slurry surfacing mixtures.

This document describes the method for preparing the specimens and for removing water from the samples before carrying out the extraction test.

The method described in this European Standard needs to be used only to determine the quantity of binder and not to investigate its quality.

This European Standard applies to slurry surfacing to be used in surface layers for roads, airfields and other trafficked areas.

2 Normative references

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

EN 12274-1, *Slurry surfacing - Test methods - Part 1: Sampling for binder extraction*

EN 12697-1:2012, *Bituminous mixtures - Test methods for hot mix asphalt - Part 1: Soluble binder content*

EN 12697-3, *Bituminous mixtures - Test methods for hot mix asphalt - Part 3: Bitumen recovery: Rotary evaporator*

EN 12697-4, *Bituminous mixtures - Test methods - Part 4: Bitumen recovery: Fractionating column*

EN 12697-39, *Bituminous mixtures - Test methods for hot mix asphalt - Part 39: Binder content by ignition*

3 Principle

Water is removed from the sample by oven-drying or by collection during the solvent extraction process.

The soluble binder content of the sample is determined in accordance with EN 12697-1:2012, Clause 5.

Binder content by non-extractive method such as ignition (e.g. according to EN 12697-39) can be used provided a correlation has been demonstrated.

In case of dispute, EN 12697-1:2012, Clause 5 shall be used.

4 Apparatus

4.1 Apparatus used for preparation of samples

1) Oven, with a suitable capacity and capable of holding the required temperatures.

2) Balance having a suitable range capable of weighing a sample to the nearest 0,1 g.

3) Container, comprising a metal tray or pot.

4) End-rounded spatula or metal rod.

5) Sampling container.

4.2 Apparatus used for testing

Binder extraction apparatus shall conform to the requirements of EN 12697-1:2012, Annex B, or alternative methods: EN 12697-39 provided a correlation has been demonstrated.

There is also provision in EN 12697-1:2012 for the use of the equipment specified in EN 12697-3 or EN 12697-4 for the case of binder quantity by total recovery.

5 Preparation of sample

1) The samples of slurry surfacing mixture shall be taken from the slurry surfacing machine in accordance with EN 12274-1.

2) Transfer the sample from the sampling container to a tray large enough to contain all of the sample when it is broken into small pieces. Break the sample into small pieces of such a size that the water can readily evaporate.

NOTE In order to remove the entire contents from the sampling container, it is often useful to cut the sides of the container open to regain all the binder.

3) Place the broken pieces of the sample in a thin layer on a tray in an oven at a temperature of between 110 and 170 ± 5°C, until constant mass. For a temperature of (110 ± 5)°C, constant mass is deemed to be achieved when the difference between successive weightings at least at 60 min intervals does not exceed 0,1 % of the mass.

4) Mix the broken sample thoroughly and divide it into a test portion with a recommended mass depending on the aggregate size in accordance with Table 1. If sampling containers with 0,5 l for slurry surfacing mixture with coarse aggregate size ≤ 8 mm are used from production, then the entire contents of each container shall be tested without further sample division.

Table 1 — Recommended mass of test portion

	Maximum size of aggregate mm				
	2	4	6	8	11
Minimum mass, after drying, of a test portion g	600			800	1100

5) An alternative method to oven-drying prior to binder extraction can be used with provision for collection of water during the solvent extraction process, as specified in EN 12697-1:2012, Annex B.

6 Test procedure

The extraction test shall be carried out in accordance with EN 12697-1:2012, Annex B or EN 12697-39.

If mixtures containing polymer modified binders are tested, the supplier should indicate the solvent and the extraction procedure should be used to recover the binder from such mixtures.

7 Test report

The test report shall state that the test has been performed in accordance with this European Standard and shall contain the following information:

a) name of the client;

b) name and address of testing laboratory;

c) incoming date of sample;

d) a unique serial number for the test report;

e) type and grade of slurry surfacing mixture;

f) identification number of the sample;

g) binder content to the nearest 0,1 % by mass;

h) water content to the nearest 0,1 % by mass;

i) whether or not sample was accompanied by a sampling protocol;

j) identification of the test method for example: reference to EN 12697-1:2012, Annex B, apparatus used;

k) date of issue;

l) signature of person accepting the technical responsibility for the test report;

m) type of aggregate (if known or visual assessment);

n) target binder content (if required);

o) reference to this European Standard.

p) any deviations from the test method.

8 Precision

Information on the precision (statistical parameters for the repeatability and the reproducibility) is not known.