

# Slurry surfacing — Test methods —

## Part 2: Determination of residual binder content

The European Standard EN 12274-2:2003 has the status of a British Standard

ICS 93.080.20

## National foreword

This British Standard is the official English language version of EN 12274-2:2003.

The UK participation in its preparation was entrusted by Technical Committee B/510, Road materials, to Subcommittee B/510/2, Surface dressing, sprays and slurry surfacing, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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English version

## Slurry surfacing - Test methods - Part 2: Determination of residual binder content

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

Dünne Asphaltsschicht in Kaltbauweise - Prüfverfahren - Teil  
2: Bestimmung des Bindemittelgehaltes

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## Foreword

This document (EN 12274-2:2003) 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of an identical text or by endorsement, at the latest by July 2003, and conflicting national standards shall be withdrawn at the latest by April 2005.

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

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

EN 12274-2, *Slurry surfacing Test methods Part 2: Determination of residual binder content.*

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 wearing.*

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

EN 12274-7<sup>1</sup>, *Slurry surfacing Test methods Part 7: Shaking abrasion test in suitability of mineral aggregates to slurry mixes.*

EN 12274-8<sup>1</sup>, *Slurry surfacing Test methods Part 8: Visual assessment.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies a test method for determining the residual binder content for samples of slurry mixes.

It also describes the method for removing water from the samples before carrying out the extraction test.

The method described in this European Standard can only be used 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.

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<sup>1</sup> In preparation.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

EN 12697-1:2000, *Bituminous mixtures — Test methods for hot mix asphalt — Part 1: Soluble binder content*.

## 3 Principle

Water is removed from the sample. The binder content of the sample is determined in accordance with EN 12697-1:2000, clause 5.

## 4 Apparatus

### 4.1 Apparatus used for preparation of samples

4.1.1 Oven, with a minimum capacity of 80 l capable of maintaining a temperature of  $(150 \pm 5)$  °C.

4.1.2 Balance, with a range 0 g to at least 2 000 g, accurate to 0,1 g.

4.1.3 Container, comprising a metal tray or pot.

4.1.4 End-rounded spatula, or metal rod.

4.1.5 Smooth-bore plastic container

### 4.2 Apparatus used for testing

Binder extraction apparatus, conforming to the requirements of EN 12697-1:2000, annex B, as appropriate.

## 5 Preparation of sample

5.1 The samples of slurry mixes shall be taken from the slurry machine in accordance with EN 12274-1.

5.2 Transfer the sample from the smooth-bore plastic container used to a container large enough to contain all of the sample when it is broken into small pieces.

NOTE In order to remove the entire contents from the smooth-bore plastic container, it is often necessary to cut the sides of the container open.

Break the sample into small pieces of such a size that the water content can readily evaporate.

Leave the broken pieces of the sample exposed in a thin layer on a clean, hard surface, in a laboratory for at least 24 h.

**5.3** Place the broken pieces of the sample in an oven at  $(150 \pm 5)$  °C until the mass is constant (approximately 4 h).

NOTE Constant mass is deemed to be achieved when the difference between successive weighings at 30 min intervals does not exceed 0,1 % of the mass.

**5.4** Mix the broken sample thoroughly and divide it into a test portion with a mass depending on the aggregate size in accordance with Table 1.

**Table 1 — Mass of a sample**

	Maximum size of aggregate in mm				
	2 to 4	6	8	11	16
Mass of a sample in g	500 to 700	600 to 800	700 to 900	800 to 1 000	1 000 to 1 200

## 6 Test procedure

The extraction test is described in EN 12697-1.

NOTE If the mixtures containing polymer modified binders are tested, the supplier should indicate what solvent and which 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) Binder content to the nearest 0,1 % by mass;
- b) name and address of testing laboratory;
- c) a unique serial number for the test report;
- d) name of the client;
- e) a description and an identification of the sample, and the date of receipt;
- f) identification of the test method by reference to annex B of EN 12697-1:2000 apparatus used;
- g) any deviations, additions to or exclusions from the test method;
- h) whether or not sample was accompanied by a sampling certificate;
- i) signature of officer accepting the technical responsibility for the test report;
- j) date of issue.

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