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**SIST EN 12272-1:2026**

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**Površinske prevleke - Preskusne metode - 1. del: Količina in natančnost pobrizga veziva in posipa drobirja**

Surface dressing - Test methods - Part 1: Rate of spread and accuracy of spread of binder and chippings

Oberflächenbehandlung - Prüfverfahren - Teil 1: Dosierung und Querverteilung von Bindemitteln und Gesteinskörnung

Enduits superficiels d'usure - Méthode d'essai - Partie 1 : Taux d'épandage et régularité transversale du liant et des gravillons

**Ta slovenski standard je istoveten z: EN 12272-1:2025**

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**ICS:**

93.080.20      Materiali za gradnjo cest      Road construction materials

**SIST EN 12272-1:2026**      **en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

# EN 12272-1

November 2025

ICS 93.080.20

Supersedes EN 12272-1:2002

English Version

## Surface dressing - Test methods - Part 1: Rate of spread and accuracy of spread of binder and chippings

Enduits superficiels d'usure - Méthode d'essai - Partie  
1 : Taux d'épandage et régularité transversale du liant  
et des gravillons

Oberflächenbehandlung - Prüfverfahren - Teil 1:  
Dosierung und Genauigkeit der Verteilung von  
Bindemitteln und Gesteinskörnung

This European Standard was approved by CEN on 4 August 2025.

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## EN 12272-1:2025 (E)

### European foreword

This document (EN 12272-1:2025) 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of an identical text or by endorsement, at the latest by May 2026, and conflicting national standards shall be withdrawn at the latest by May 2026.

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 12272-1:2002.

EN 12272-1:2025 includes the following significant technical changes with respect to EN 12272-1:2002:

- greater tolerance on “carpet” surfaces for controlling the binder dosage;
- for aggregates, introduction of weighing of aggregates (English method) in addition to the “volumetric” dosing box method.

This document is one of a series of standards as listed below:

EN 12272-1, *Surface dressing – Test methods – Part 1: Rate of spread and accuracy of spread of binder and chippings.*

EN 12272-2, *Surface dressing – Test methods – Part 2: Visual assessment of defects.*

EN 12272-3, *Surface dressing – Test methods – Part 3: Determination of binder aggregate adhesivity by the Vialit plate shock test method.*

In this document, the Annexes A, B, C and D are informative.

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 implement this European Standard: 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.

## 1 Scope

This document specifies test methods for determining the rates of spread and accuracy of spread of binder and chippings of a surface dressing on a section of road at a given time.

This test method can also be used for determining the rate of spread and accuracy of spread of sprayed bituminous emulsions e.g. when used as bond coats or asphalt preservation systems. The performance categories for binder rate of spread and accuracy of spread in EN 12271 do not apply to bond coats and tack coats.

The test methods are used on site to check the ability of binder sprayers and chipping spreaders to meet the intended rates of spread and tolerances and coefficients of variation.

The test methods can be used to fulfil the Factory Production Control requirements of EN 12271 – Surface Dressings – Requirements.

- Plant and equipment calibration.
- Minimum inspection and test frequencies during production.

Using these methods for inspections during production (FPC), allows certain changes to these methods due to the specificity of certain sites and materials used (e.g. combined chipping-binder spreaders). In this case, the changes are documented in the Factory Production Control (FPC) and identified in the test reports.

Other test methods used to check the rate of spread and accuracy of spread of binder, such as the static spray bar bench test for sprayers, are not covered by this document.

**WARNING** — The use of this document can involve hazardous operations. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety practices and determine the applicability of regulatory limitations prior to use.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

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

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

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

### 3.1

#### **surface dressing**

surface treatment consisting of the successive laying of at least one layer of binder and at least one layer of chippings

### 3.2

#### **chipping**

coarse aggregate within a narrow grading range, practically free of fines

**EN 12272-1:2025 (E)**

Note 1 to entry: Chippings can have specified values for strength, soundness, shape, polishing resistance, resistance to abrasion, purity, durability and affinity to bituminous binder. Chippings should be washed to achieve the required fines content.

**3.3****rate of spread of binder**

average mass of binder in kilograms per square metre ( $\text{kg}/\text{m}^2$ ), or average volume of binder in  $\text{l}/\text{m}^2$  applied to the road surface when measured in accordance with this document

**3.4****rate of spread of chippings**

average bulk volume in litres per square metre ( $\text{l}/\text{m}^2$ ) or, mass in kilograms per square metre ( $\text{kg}/\text{m}^2$ ) applied to the road surface, when measured in accordance with this document

**3.5****proportional range**

difference between the maximum and minimum individual values of rates of spread of binder or chippings determined divided by the mean value, using the test methods in this document

**3.6****accuracy of spread of binder**

coefficient of variation of the mass of binder applied to the road surface when measured in accordance with this document

Note 1 to entry: The value and graph indicate the ability of the sprayer to apply binder evenly across the road

**3.7****accuracy of spread of chippings**

coefficient of variation of the mass of chippings applied to the road surface when measured in accordance with this document

Note 1 to entry: The value and graph indicate the ability of the chipping spreader to apply the chippings evenly across the road

**4 Determination of the rate of spread of binder****4.1 Principle**

Samples of the binder sprayed by the binder sprayer are collected to determine the average rate of spread. The minimum total test area shall be  $0,5 \text{ m}^2$  (minimum 3) where possible spaced evenly across the full width of the road to be sprayed.

**4.2 Apparatus****4.2.1 Collectors**

Collectors shall be of material sufficiently robust to resist deformation in use and be capable of retaining 100 % applied binder.

The sprayer shall achieve a consistent operation before the test commences.

**4.2.2 Portable balance**

The portable balance shall be, readable to 0,1 g and of sufficient capacity to weigh one tray with  $1,5 \times$  the maximum rate of spread of binder.

### 4.2.3 Plastic bags

Plastic bags or similar, if used, shall be lightweight and capable of containing the binder and collector for weighing without any loss by leakage or evaporation.

### 4.2.4 Adhesive Tape

Adhesive tape can be used, to hold the collectors to the road and to mask them to the required dimensions. When removed, the adhesive tape shall not damage the masked parts of collectors to ensure there is no loss in mass of the underlying material.

## 4.3 Procedure

### 4.3.1 Preparation of the collectors

Ensure each collector is traceable to its position on the road surface under test. If necessary, mark the collectors with an indelible identification. Weigh the collectors together with a plastic bag (if used), to the nearest 1 g and record these masses as the mass of each collector before spraying.

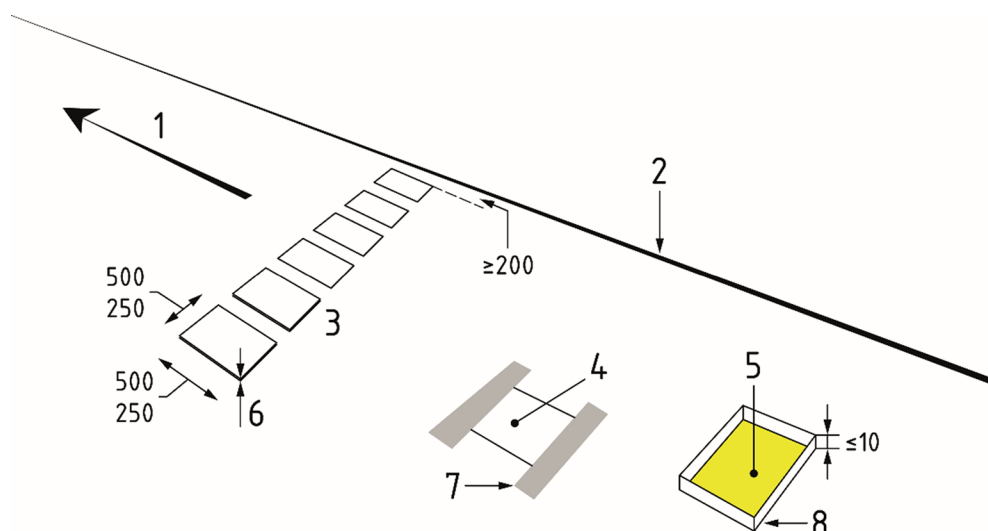
### 4.3.2 Location and placement of the collectors

Space the collectors across the width of road, which is to be sprayed with binder, and at least 200 mm from the edge as shown in Figure 1. If adhesive tape is used to secure the collectors to the road during spraying, measure the length and width of each of the areas exposed to the binder spray to the nearest 5 mm for the calculation of the exposed area.

When the rates of transverse distribution are intentionally different in the same transverse profile then the collectors related to the same measurement should be placed in areas where the intended rate of spread is the same.

Care should be taken to ensure that when spray curtains are being used, they are raised to avoid touching the collectors.

Dimensions in millimetres



#### Key

- 1 Working direction of the sprayer
- 2 Edge of spray
- 3 Trays or other collectors (minimum 3)
- 4 Area  $A_i$
- 5 Foam sheet or absorbent material insert