

Surface dressing — Test methods —

Part 2: Visual assessment of defects

The European Standard EN 12272-2:2003 has the status of a
British Standard

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National foreword

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

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- 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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Surface dressing - Test methods - Part 2: Visual assessment of defects

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Oberflächenbehandlung - Prüfverfahren - Teil 2: Visuelle
Beurteilung von Inhomogenitäten

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Foreword

This document (EN 12272-2:2003) 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of an identical text or by endorsement, at the latest by December 2003, and conflicting national standards shall be withdrawn at the latest by December 2005.

This European Standard 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 method — Part 3: Determination of binder aggregate adhesivity by the Vialit plate shock test method*

Annexes A and B are normative.

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 is applicable to all surface dressings (roads, airfields and other trafficked areas) and specifies qualitative and quantitative methods of the visual assessment of defects of surface dressing.

The results of the qualitative evaluation carried out by visual assessment when specified shall be reported in annex A. This is a rapid practical test and may be specified as the primary test so that if the results are obvious or are without any doubt the more time consuming quantitative test method may be avoided. The quantitative test method shall be carried out when specified and the table of results in annex B reported.

The visual assessment reports for both methods have identical records and thus both may be used to check the specification for visual assessment of defects (prEN 12271-4). The rapid qualitative test methods is dependent on the skill and experience of the operator and therefore the repeatability and the reproducibility values will not be as precise, but the convenience of the method and lack of disruption to traffic will ensure its use.

The national application document may state whether either or both or sequentially the qualitative and quantitative tests are to be used and may relate this to types of site (for example lightly trafficked roads may not be required to be quantitatively assessed).

The test may be used to evaluate the durability or performance of a surface dressing. For example fretting may indicate poor adhesion of the binder to chippings.

2 Normative references

Not applicable.

3 Terms and definitions

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

3.1
mosaic
arrangement of chippings such that they are in shoulder to shoulder contact and are thus supported laterally

NOTE The initial stability of a surface dressing is dependent upon the formation of a close mosaic and the cohesion and adhesion of the binder. Subsequent durability is gained by re-orientation of the chippings by traffic to form a tight mosaic, and sufficient binder to secure the chippings to the existing road surface before the onset of embedment.

3.2
embedment
process whereby chippings are forced into an existing road surface by the action of traffic (see Figure 1) resulting in a reduction of macrotexture with time, which is rapid in the first summer and thereafter stabilises for well designed surface dressings

NOTE Factors affecting embedment are

- increased traffic, especially heavy goods vehicles, increases the rate of embedment;
- road hardness: cement concrete, for example, does not allow embedment;
- summer months, when the average road temperature is higher, results in softer roads with less resistance to embedment;
- size of chippings: large chippings reduce the rate of embedment;