

Slurry surfacing — Test methods —

Part 8: Visual assessment of defects

The European Standard EN 12274-8:2005 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 surfacings, 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 UK interests informed;
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Summary of pages

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Partie 8: Evaluation visuelle

Dünne Asphaltschichten in Kaltbauweise - Prüfverfahren -
Teil 8: Augenscheinliche Beurteilung

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Foreword

This European Standard (EN 12274-8:2005) 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of an identical text or by endorsement, at the latest by March 2006, and conflicting national standards shall be withdrawn at the latest by March 2006.

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, *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 organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies qualitative and quantitative test methods of the visual assessment of defects of slurry surfacing.

This European Standard is applicable to all slurry surfacing (roads, airfields and other areas).

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.

Defects emanating from the substrate (existing road) must not be taken into consideration.

NOTE 1 The qualitative and quantitative tests may be used separately or sequentially. This may relate to different types of sites (for example lightly trafficked roads may not be required to be quantitatively assessed).

NOTE 2 The test may be used to evaluate the durability of slurry surfacing.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13036-1, *Road and airfield surface characteristics — Test methods — Part 1: Measurement of pavement surface macrotexture depth using a volumetric measurement patch technique*

3 Terms, definitions and symbols

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

3.1 Terms and definitions

3.1.1 defect

state of a slurry surfacing where the material is affected by one or more of the effects defined in this European Standard (see 3.1.2 to 3.1.13).

3.1.2 bleeding, fatting up and tracking appearance of free binder at the surface

NOTE This may be due to the binder migrating to the surface (bleeding) or to coarse aggregate migrating downwards (fatting up) or a combination of the two, it is often difficult to visually separate the two causes. Tracking is evident as shiny areas caused by traffic resulting in loss of macrotexture normally in the wheel tracks.

3.1.3 delamination detachment of the slurry surfacing from the underlying road or from a lower layer of a multi-layer slurry surfacing

3.1.4 wearing and loss of slurry surfacing loss of mass of material

3.1.5**loss of coarse aggregate**

loss of chippings due to the action of traffic before the slurry surfacing has gained sufficient strength or by stripping of the binder from the aggregate

3.1.6**lane joint gaps**

incomplete layer of slurry surfacing between adjacent lanes

3.1.7**rutting**

permanent deformation, by flow, of the slurry surfacing layer, which occurs in the wheel tracks

3.1.8**slippage**

horizontal deformation by flow of the slurry surfacing over the layer beneath or the underlying road due to the action of traffic

3.1.9**corrugation**

transverse undulations at more or less regular spacing (the area encompassing the corrugation is measured)

3.1.10**bump (ridge)**

transverse or longitudinal raised area

NOTE This may be caused by overlap during installation.

3.1.11**small repetitive defects or groups of small defects**

defects less than 1 m^2 and greater than $10 D^2$ where D is the upper aggregate size as defined in EN 13043 for the slurry surfacing being visually assessed

NOTE They may be grouped together for evaluation.

3.1.12**other defects**

defects caused by operations on the road since the slurry surfacing was laid, for example damage caused by winter maintenance or accident. These are not considered as a defect in this European Standard

3.1.13**longitudinal grooves (score marks)**

marks parallel to the laying direction below the general finished level of the slurry surfacing

NOTE Longitudinal grooves are often produced by larger aggregate particles or broken and hardened mix dragged by the spreader box.

3.1.14**width of lane**

when there are no road markings, the lane width is the full road width; when there are road markings, the lane width is the distance between the centre marking and kerb or verge; and when there are more than two lanes, then the outside or centre lanes and hard shoulder (safety zone) are considered separately

3.2 Symbols

A_1	is the sum of the areas of bleeding, fattening up and tracking in the 100 m section being considered, in square metres (m^2);
A_2	is the sum of the areas of delamination, loss of aggregate, wearing, lane joint gaps, rutting and slippage in the 100 m section being considered, in square metres (m^2);
A_3	is the sum of the areas of corrugation, bumps and ridges in the 100 m section being considered, in square metres (m^2);
A_4	is the sum of the areas of the rectangle or rectangles containing small repetitive defects or group of small defects in the 100 m section being considered, in square metres (m^2);
D	is the upper aggregate sieve size of the slurry surfacing (as in EN 13043);
L	is the total length of longitudinal grooves in the 100 m section, in metres (m);
P_1	is the proportion of area of bleeding, fattening up and tracking in the 100 m section being considered, expressed as a percentage (%), of the area of the section;
P_2	is the proportion of area of delamination, loss of aggregate, wearing, lane joint gaps, rutting and slippage in the 100 m section being considered, expressed as a percentage (%), of the area of the section;
P_3	is the proportion of area of corrugation, bumps and ridges in the 100 m section being considered, expressed as a percentage (%), of the area of the section;
P_4	is the proportion of area of the rectangle or rectangles containing a group of small repetitive defects, in the 100 m section being considered, expressed as a percentage (%), of the area of the section plus the number of rectangles (see Annex A, line 14 and Annex B, line 14, area and number);
S	is the area of 100 m long section of slurry surfacing, in square metres (m^2);
W	is the mean width of lane, in metres (m).

4 Visual assessment of defects

4.1 General

A (100 ± 1) m section of slurry surfacing is chosen for visual assessment for each lane of the road.

The section reference shall be recorded in the relevant annex.

Sections may be located anywhere along the road except that they shall not overlap.

The remainder of the site that is not chosen for testing or the area between sections is deemed to be without defects at the time the test is carried out.

NOTE 1 The sections should be chosen in order to maximise the number of defects in each section.

NOTE 2 If the defects are localised there may be only one section chosen in one lane for the entire length of road treated.