SLOVENSKI PREDSTANDARD

oSIST prEN 15366:2005

december 2005

Winter and road service area maintenance equipment - Solid absorbents intended for road usage

ICS 13.030.40

Referenčna številka
oSIST prEN 15366:2005(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 15366

October 2005

ICS

English Version

Winter and road service area maintenance equipment - Solid absorbents intended for road usage

Matériel de viabilité hivernale et d'entretien des dépendances routières - Produits absorbants solides destinés à un usage routier

Produkte für den Straßen betriebs- und Winderdienst - Absorptionsmittel zur Anwendung auf Straßen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 337.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword 3
1 Scope 4
2 Normative references 4
3 Terms and definitions 4
4 Safety principles 4
5 Functional specifications for solid absorbents intended for road usage 5
6 Sampling for tests 5
7 Marking, labelling, packaging 6
Annex A (normative) Determination of the variation in the skid resistance of a road surface or traffic area caused by the presence of an absorbent 7
Annex B (normative) Determination of absorbency of water and hydrocarbon 10
Annex C (normative) Label template 14
Annex D (informative) 15
Bibliography 16

Foreword

This document (prEN 15366:2005) has been prepared by Technical Committee CEN/TC 337 “Winter maintenance and road service area maintenance equipment”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

1 Scope

This document applies to bulk spreadable products for absorbing hydrocarbons, mineral oils and similar liquids from road surfaces or traffic areas.

2 Normative references

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

EN 590, *Automotive fuels — Diesel — Requirements and test methods.*

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

EN 14231, *Natural stone test methods — Determination of the slip resistance by means of the pendulum tester.*

ISO 8213, *Chemical products for industrial use — Sampling techniques — Solid chemical products in the form of particles varying from powders to coarse lumps.*

ISO 9044:1999, *Industrial woven wire cloth — Technical requirements and testing.*

ISO 11014-1:1994, *Safety data sheet for chemical products — Part 1: Content and order of sections.*

3 Terms and definitions

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

3.1
absorbents
absorbents, in the sense of this standard, are solid substances suitable for absorbing and adsorbing hydrocarbons, mineral oils and similar liquids from road surfaces or traffic areas

3.2
skid resistance, or slip resistance
the property of the road surface which evaluates the potential the relative movement between the contact patch of a vehicle tyre and the surface

3.3
SRT: Skid Resistance Test
method to measure the Slip/Skid Resistance of a Surface by means of the pendulum test

3.4
absorbency
absorbency is the ability of a given mass of product material to absorb a quantity of liquid

4 Safety principles

4.1 Safety data sheets

A safety data sheet, in accordance with the standard (European Directive 2001/58/EC of July 27th 2001 or ISO 11014-1), must be available.

The national authorities of the country where the absorbent shall be used may demand proof that the declarations in the SDS are correct.

4.2 Human health and environmental properties

According to this standard no absorbents shall be used on roads, which are classified as “dangerous” with respect to European Directive 67/548, Article 2 (2).

Products must fulfill the European regulations for disposal in landfill according to European Decision 2003/33, attachment, chapter 2.2.2., at L/S 10 l/kg (except sulphate).

5 Functional specifications for solid absorbents intended for road usage

The specifications for absorbents that follow specify the requirements for road usage. These specifications are designed to ensure the safety of road users and to limit the dissemination of pollutants into the environment.

5.1 Skid resistance

The variations in the skid resistance of the surface are assessed using the test protocol described in Annex A.

Part 1: Skid resistance of wet absorbent

Part 2: Skid resistance of the road surface after removal of contaminated absorbent

The required minimum values are for part 1 and part 2:

SRT Final Coefficient ≥ 85 %SRT initial Coefficient

The skid resistance is measured using the apparatus described in EN 14231.

5.2 Absorbency

The absorbency is assessed using the test protocol described in Annex B.

The minimum absorbency of hydrocarbons (gas oil) is set at **50 %** wt.

The absorbency of water will be measured.

5.3 Identification of the absorbent

A technical data sheet will be issued with the absorbent. This data sheet will list the composition of the product stating the standardized test methods used (referred in Annex D) and the physical properties of the product. The objective is to know the ID card of the product.

6 Sampling for tests

The specifications for absorbents that follow specify the requirements for samples to be tested in an external testing laboratory.

6.1 Sample definition

If the product is already on the market, the sample is an original unopened, packed, conditioned absorbent. This sample shall be marked to have a traceability of the product (Name, sample number…).

Otherwise, the claimant has to give a guarantee that the sample sent corresponds in all properties to the product quality to be sold later on (minimum quantity: 5kg).

Technical data sheet and safety data sheet must be sent with the product.

6.2 Sampling

Sampling in the laboratory is made in accordance with ISO 8213.

After testing, the remaining marked representative samples will be stored for 6 months in the testing laboratory.

7 Marking, labelling, packaging

Absorbents intended for road usage shall bear labels or imprints, A.5 size or larger, and in compliance with the requirements and should include the following additional information on each bag in one of the languages generally understood in the country where the product is sold.

The marking contains:

— the nature of the product including a list of essential components;

— R indicates: suitable for road purposes;

— reference to the usage: "Absorbent for use on road surfaces and traffic areas".

— reference to this standard;

— product name or product brand name;

— name of producer or distributor or other official identification code;

— a code for product traceability for at least two years;

— the contents of the package either in kilograms or in litres, with an indication of bulk density;

— absorbency for hydrocarbons and for water as per this standard;

— conditions for exposure, handling and storage extracted from the safety data sheet as defined in ISO 11014-1;

— statement of the obligations and the risks of using absorbents on roads;

  — *Absorbents contaminated by pollutants may present the same dangers as the absorbed pollutants.*

  — *They should be handled and stored with the same precautions.*

  — *Used absorbents should be removed from the road surface and collected, labelled and disposed of in accordance with the legislation in force."*

— any other information concerning health and safety in use must be added to this marking.

A template label is included in Annex C.

Annex A
(normative)

Determination of the variation in the skid resistance of a road surface or traffic area caused by the presence of an absorbent

A.1 Scope

This protocol describes laboratory test methods to assess the variation in the skid resistance of a road surface or traffic area following hydrocarbon pollution, treated with an absorbent.

Part 1: Skid resistance of wet absorbent

Part 2: Skid resistance of the road surface after removal of contaminated absorbent

A.2 References

Refer to standards EN 590 and EN 14231 and EN 13036-1 (Next European standard…)

A.3 Principle

The test method consists of determining the variation in the skid resistance of a road surface or traffic area following hydrocarbon pollution, treated with an absorbent to be tested.

A.4 Apparatus

A.4.1 Apparatus

A Pendulum friction tester, as described in EN 14231, will be used to determine the skid resistance of the road surface.

A.4.2 Reference test surfaces

The reference test surfaces are made of replicas of road surfaces made of resin [1)], which size is 280 by 200 mm of the 0/10 mm semi-granular asphalt concrete type, with a basic SRT friction factor greater than 0.50, as defined in EN 14231, and a mean macro texture depth greater than 0.6 mm, as defined in EN 13036-1.

A.4.3 Demineralized water

A.4.4 Reference hydrocarbon

The reference hydrocarbon used to contaminate the road surface and the absorbent is of the diesel fuel type (EN 590 – TC 19 – Mineral oil - Normal type – Not winter type).

A.5 Special instructions

These instructions are intended to guarantee the reproducibility of the measurements of the skid resistance following contamination by hydrocarbons.

---

1) Replica made of resin by pouring into a silicone rubber cast of the road surface. Each EU country has such a footprint – Reference surface made with silicon is stored in AIPCR.

- Measurements will be taken in a laboratory at a constant temperature (21±3°C). The materials and measurement apparatus will be stored at this temperature.
- Mounting of the resin surface and of the pendulum shall be rigid. Care must be taken to ensure that there is no movement of the surface during the swing of the pendulum.
- To characterise an absorbent: use the same operative SRT pad according EN 14231 for all the measurements.

Before each SRT measurement:

- Clean conscientiously the reference surfaces.
  - Brush the sample under hot water with a detergent and rinse it with water;
  - clean the sample with propanol or equivalent;
  - dry with compressed air.
- Clean the pad
  - by rubbing with a cloth soaked in propanol or equivalent;
  - leave the pad in water between the measurements.
- Clean the brush with propanol.

A.6 Procedure for part 1: skid resistance of wet absorbent

Repeat the procedure at least twice.

A.6.1 Determine the initial SRT friction factor of the wet reference surface by spraying the surface with water (see A.4.3) before each release. Repeat the drop of the pad until five values are measured with no more than 2 points deviation. The initial SRT friction factor is the average value of the last five releases.

A.6.2 Dry with compressed air

A.6.3 Put the absorbent in conical sieves (as used in the Westinghouse Test) as referred in Annex B 4.1.

A.6.4 Immerse the conical sieves in a tank full of demineralized water for 20 min.

A.6.5 Withdraw and allow to drain for 30 min.

A.6.6 Apply a coat of saturated absorbent which is 4 mm thick on to the reference surface.
Use a mould prepared from a flat sheet 4 mm thick from which a rectangular section 200 mm × 100mm has been removed. Form a 4 mm deep cavity by positioning the sheet on the reference surface. Fill the cavity with saturated absorbent and draw level with a scraper.

A.6.7 Determine the final SRT friction factor of the reference surface covered with absorbent. Do not add water between the drops. Repeat the drop of the Pad until five values are measured with no more than 2 points deviation. The final SRT friction value is the average value of the last five releases.

A.7 Procedure for part 2: skid resistance of the road surface after removal of contaminated absorbent

Repeat the procedure at least twice.