

**Teemärgistusmaterjalid. Pealepuistematerjalid.  
Klaaskuulid, libisemisvastased materjalid ja nende kahe  
segud**

Road marking materials - Drop on materials - Glass beads,  
antiskid aggregates and mixtures of the two

## EESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD

**EN 1423**

NORME EUROPÉENNE

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English Version

## Road marking materials - Drop on materials - Glass beads, antiskid aggregates and mixtures of the two

Produits de marquage routier - Produits de saupoudrage -  
Microbilles de verre, granulats antidérapants et mélange de  
ces deux composants

Straßenmarkierungsmaterialien - Nachstreumittel -  
Markierungs-Glasperlen, Griffigkeitsmittel und  
Nachstreugemische

This European Standard was approved by CEN on 17 December 2011.

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## Contents

<b>Foreword</b> .....	<b>5</b>
<b>1 Scope</b> .....	<b>6</b>
<b>2 Normative references</b> .....	<b>6</b>
<b>3 Terms and definitions</b> .....	<b>6</b>
<b>4 Requirements</b> .....	<b>7</b>
<b>4.1 Glass beads</b> .....	<b>7</b>
<b>4.1.1 Surface treatments of glass beads</b> .....	<b>7</b>
<b>4.1.2 Visibility characteristics</b> .....	<b>7</b>
<b>4.1.3 Granulometry</b> .....	<b>8</b>
<b>4.1.4 Dangerous substances</b> .....	<b>10</b>
<b>4.1.5 Durability aspects — Resistance to chemicals: water, hydrochloric acid, calcium chloride and sodium sulphide</b> .....	<b>10</b>
<b>4.2 Transparent antiskid aggregates</b> .....	<b>10</b>
<b>4.2.1 pH value</b> .....	<b>10</b>
<b>4.2.2 Granulometry</b> .....	<b>10</b>
<b>4.2.3 Dangerous substances</b> .....	<b>12</b>
<b>4.2.4 Durability aspects — Resistance to fragmentation (friability)</b> .....	<b>12</b>
<b>4.3 Non transparent antiskid aggregates</b> .....	<b>12</b>
<b>4.3.1 pH value</b> .....	<b>12</b>
<b>4.3.2 Visibility characteristics</b> .....	<b>12</b>
<b>4.3.3 Granulometry</b> .....	<b>13</b>
<b>4.3.4 Durability aspects — Resistance to fragmentation (friability)</b> .....	<b>14</b>
<b>4.4 Mixtures of glass beads and antiskid aggregates</b> .....	<b>14</b>
<b>4.4.1 General</b> .....	<b>14</b>
<b>4.4.2 Durability aspects</b> .....	<b>15</b>
<b>5 Testing, assessment and sampling methods</b> .....	<b>15</b>
<b>5.1 General</b> .....	<b>15</b>
<b>5.2 Sampling</b> .....	<b>15</b>
<b>5.3 Glass beads</b> .....	<b>16</b>
<b>5.3.1 Surface treatments of glass beads</b> .....	<b>16</b>
<b>5.3.2 Visibility characteristics</b> .....	<b>16</b>
<b>5.3.3 Granulometry</b> .....	<b>16</b>
<b>5.3.4 Dangerous substances</b> .....	<b>16</b>
<b>5.3.5 Durability — Resistance to chemicals: water, hydrochloric acid, calcium chloride and sodium sulphide</b> .....	<b>16</b>
<b>5.4 Transparent antiskid aggregates</b> .....	<b>16</b>
<b>5.4.1 pH value</b> .....	<b>16</b>
<b>5.4.2 Granulometry</b> .....	<b>17</b>
<b>5.4.3 Dangerous substances</b> .....	<b>17</b>
<b>5.4.4 Durability — Resistance to fragmentation (friability)</b> .....	<b>17</b>
<b>5.5 Non transparent antiskid aggregates</b> .....	<b>17</b>
<b>5.5.1 pH value</b> .....	<b>17</b>
<b>5.5.2 Visibility Characteristics</b> .....	<b>17</b>
<b>5.5.3 Granulometry</b> .....	<b>17</b>
<b>5.5.4 Durability — Resistance to fragmentation (friability)</b> .....	<b>17</b>
<b>5.6 Mixture of glass beads and antiskid aggregates</b> .....	<b>17</b>
<b>6 Evaluation of conformity</b> .....	<b>18</b>
<b>6.1 General</b> .....	<b>18</b>
<b>6.2 Initial type testing and type testing</b> .....	<b>18</b>
<b>6.2.1 General</b> .....	<b>18</b>
<b>6.2.2 Test samples, testing and compliance criteria</b> .....	<b>19</b>

6.2.3	Test reports .....	21
6.3	Factory Production control (FPC).....	21
6.3.1	General .....	21
6.3.2	Requirements.....	21
6.3.3	Product specific requirements.....	25
6.3.4	Initial inspection of factory and FPC .....	26
6.3.5	Continuous surveillance of FPC .....	26
6.3.6	Procedure for modifications .....	26
7	Marking .....	27
	<b>Annex A (normative) Test method to determine the refractive index of the glass beads.....</b>	28
A.1	General .....	28
A.2	Principle .....	28
A.3	Equipment and materials.....	29
A.4	Procedure .....	30
A.5	Expression of the results .....	30
	<b>Annex B (normative) Test methods to determine the resistance of the glass beads to the effects of water, hydrochloric acid, calcium chloride and sodium sulphide .....</b>	31
B.1	Resistance to the effects of water .....	31
B.2	Resistance to the effects of hydrochloric acid .....	31
B.3	Resistance to the effects of calcium chloride .....	31
B.4	Resistance to the effects of sodium Sulphide .....	31
	<b>Annex C (normative) Glass bead defects.....</b>	33
C.1	Oval glass beads (see Figure C.1) .....	33
C.2	Satellites (see Figure C.2).....	33
C.3	Tear shaped glass beads (see Figure C.3).....	33
C.4	Glass beads fused together (see Figure C.4) .....	34
C.5	Roundish glass beads (see Figure C.5) .....	34
C.6	Opaque glass beads (see Figure C.6) .....	34
C.7	Milky glass beads (see Figure C.7) .....	35
C.8	Gas inclusions (see Figure C.8) .....	35
C.9	Grains (see Figure C.9) .....	35
C.10	Foreign particles.....	36
	<b>Annex D (normative) Test method to determine maximum weighted percentage of defective glass beads — Procedure.....</b>	37
D.1	General .....	37
D.2	Results of counting .....	38
	<b>Annex E (normative) Test method to determine the presence of the moisture proof coating .....</b>	40
E.1	Procedure A .....	40
E.2	Procedure B .....	41
	<b>Annex F (normative) Test method to determine the presence of floatation coating .....</b>	42
F.1	General .....	42
F.2	Principle .....	42
F.3	Apparatus and reagents .....	42
F.4	Procedure .....	42
F.5	Results.....	42
	<b>Annex G (normative) Test method to determine the friability index of the antiskid aggregates .....</b>	43
G.1	General .....	43
G.2	Apparatus .....	43
G.3	Material to be tested .....	43
G.4	Procedure .....	44
G.5	Expression of results .....	44
G.6	Precision .....	45
	<b>Annex H (informative) Alternative test methods to determine maximum weighted percentage of defective glass beads .....</b>	46
H.1	General .....	46
H.2	Visual test method.....	46

<b>H.3 Automatic test method .....</b>	<b>47</b>
<b>Annex I (normative) Test method to determine the presence of dangerous substances .....</b>	<b>53</b>
I.1 Reference method.....	53
I.2 Quick alternative method.....	54
<b>Annex J (normative) Test method to determine glass beads and antiskid aggregates ratio in mixtures of the two .....</b>	<b>55</b>
J.1 General.....	55
J.2 Equipment and material .....	55
J.3 Procedure .....	55
J.4 Alternative methods .....	55
<b>Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive.....</b>	<b>57</b>
<b>Bibliography .....</b>	<b>70</b>

## Foreword

This document (EN 1423:2012) has been prepared by Technical Committee CEN/TC 226 "Road equipment", the secretariat of which is held by AFNOR.

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 August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1423:1997.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The main changes incorporated in this revision are:

- a) Modification of the definitions to clarify better the different products glass beads antiskid aggregates and mixtures of the two;
- b) Update of the standard to the new technologies that allow lower defects on glass beads with diameter equal or bigger than 1 mm;
- c) Addition of the essential characteristic of dangerous substances for glass beads and transparent antiskid aggregates in glass;
- d) Addition of test method to determine presence of dangerous substances;
- e) Addition of test method to determine glass beads and antiskid aggregates ratio in mixtures of the two;
- f) Modification of the order of paragraphs to comply to the template for European Standards;
- g) Addition of Clause 6 "Evaluation of conformity";
- h) Modification of parts of Annex ZA to comply to the template for product standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies the requirements applicable to glass beads, anti-skid aggregates, and the mixture of the two, which are applied as drop-on materials on road markings products (i.e. paints, cold plastics and thermoplastics).

Glass beads and/or anti-skid aggregates, or their mixture, applied during the process of manufacturing other road marking products are not covered by this European Standard.

## 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 ISO 787-9, *General methods of test for pigments and extenders — Part 9: Determination of pH value of aqueous suspension (ISO 787-9)*

ISO 565:1990, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 2591-1, *Test sieving — Part 1: Methods using test sieves of woven wire cloth and perforated metal plate*

ISO 7724-2, *Paints and varnishes — Colorimetry — Part 2: Colour measurement*

## 3 Terms and definitions

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

### 3.1 types of drop-on materials

#### 3.1.1

##### **glass bead**

transparent spherical glass particle, used to provide night visibility for the road markings by retroreflecting the incident headlight beams of a vehicle towards the driver

**NOTE** This product is defined by five characteristics: refractive index, maximum weighted percentage of defective glass beads, granulometry, content of dangerous substances and resistance to chemicals. In addition, surface treatment with its intended use need to be declared by manufacturer (if any).

#### 3.1.2

##### **antiskid aggregate**

hard grain of natural or artificial origin, used to provide antiskid qualities for the road markings

**NOTE** This product is defined by the following characteristics:

- transparent antiskid aggregates: granulometry, resistance to fragmentation (friability); in addition, for transparent antiskid aggregates in glass, content of dangerous substances;
- non-transparent antiskid aggregate granulometry, resistance to fragmentation (friability) chromaticity co-ordinates and luminance factor.

#### 3.1.3

##### **mixture of glass beads and antiskid aggregates**

product which is a combination of here above product criteria and their relative ratio