

**Täitematerjalide mehaaniliste ja füüsikaliste  
omaduste katsetamine. Osa 9: Kulumiskindluse  
määramine abrasiivsele hõõrdkulumisele  
naastrehvide toimet. Põhjamaade katse  
KONSOLIDEERITUD TEKST**

Tests for mechanical and physical properties of  
aggregates - Part 9: Determination of the resistance  
to wear by abrasion from studded tyres - Nordic test  
CONSOLIDATED TEXT

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 1097-9:2007 sisaldab Euroopa standardi EN 1097-9:1998+A1:2005 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 12.10.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1097-9:2007 consists of the English text of the European standard EN 1097-9:1998+A1:2005.

This standard is ratified with the order of Estonian Centre for Standardisation dated 12.10.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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**ICS 91.100.15**

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Descriptors: aggregates, tests, simulation, physical properties, mechanical properties, abrasion tests, wear

English version

Tests for mechanical and physical properties of aggregates -  
Part 9: Determination of the resistance to wear by abrasion from  
studded tyres - Nordic test

Essais pour déterminer les propriétés mécaniques et  
physiques des granulats - Partie 9: Méthode pour la  
détermination de la résistance à l'usure par abrasion  
provoquée par les pneus à crampons - Essai scandinave

Prüfverfahren für mechanische und physikalische  
Eigenschaften von Gesteinskörnungen - Teil 9:  
Bestimmung des Widerstandes gegen Verschleiß durch  
Spikereifen - Nordische Prüfung

This European Standard was approved by CEN on 25 March 1998.

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This European Standard exists 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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**Contents**

**Page**

Foreword	3
1 Scope	4
2 Normative references	4
3 Definitions	5
4 Principle	5
5 Apparatus	5
6 Preparation of test specimens	8
7 Procedure	8
8 Calculation and expression of results	9
9 Test report	9
Annex A (informative) Precision	10
Annex B (informative) Bibliography	11

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 154 "Aggregates", the secretariat of which is held by BSI.

The test procedure specified in this standard has been developed in Finland, Norway and Sweden where studded tyres are frequently used during cold seasons.

This standard forms part of a series of tests for mechanical and physical properties of aggregates. Test methods for other properties of aggregates will be covered by Parts of the following European Standards:

EN 932	Tests for general properties of aggregates
EN 933	Tests for geometrical properties of aggregates
EN 1367	Tests for thermal and weathering properties of aggregates
EN 1744	Tests for chemical properties of aggregates
prEN 13179	Tests for filler aggregate used in bituminous bound fillers

The other parts of EN 1097 will be:

EN 1097-1	Tests for mechanical and physical properties of aggregates Part 1: Determination of the resistance to wear (micro-Deval)
prEN 1097-2	Tests for mechanical and physical properties of aggregates Part 2: Methods for the determination of resistance to fragmentation
prEN 1097-3	Tests for mechanical and physical properties of aggregates Part 3: Determination of loose bulk density and voids
prEN 1097-4	Tests for mechanical and physical properties of aggregates Part 4: Determination of the voids of dry compacted filler
prEN 1097-5	Tests for mechanical and physical properties of aggregates Part 5: Determination of the water content by drying in a ventilated oven
prEN 1097-6	Tests for mechanical and physical properties of aggregates Part 6: Determination of particle density and water absorption
prEN 1097-7	Tests for mechanical and physical properties of aggregates Part 7: Determination of the particle density of filler - Pyknometer method
prEN 1097-8	Tests for mechanical and physical properties of aggregates Part 8: Determination of the polished stone value
prEN 1097-10	Tests for mechanical and physical properties of aggregates Part 10: Water suction height

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 October 1998, and conflicting national standards shall be withdrawn at the latest by December 1999.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies the test procedure for the simulation of the abrasive action of studded tyres on coarse aggregates used in a surface layer.

The test is applicable to crushed and uncrushed natural and artificial aggregates with a size fraction of 11,2 mm to 16,0 mm.

NOTE: Deviations from this size range will not give consistent results.

## 2 Normative references

This European Standard incorporates by dated or by undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

prEN 932-2	Tests for general properties of aggregates Part 2: Methods for reducing laboratory samples
prEN 932-5	Tests for general properties of aggregates Part 5: Common equipment and calibration
EN 933-1:1997	Tests for geometrical properties of aggregates Part 1: Determination of particle size distribution - Sieving method
EN 933-2	Tests for geometrical properties of aggregates Part 2: Determination of particle size distribution - Test sieves, nominal size of apertures
prEN 1097-6	Tests for mechanical and physical properties of aggregates Part 6: Determination of particle density and water absorption
ISO 683-14:1992	Heat-treatable steels, alloy steels and free-cutting steels Part 14: Hot-rolled steels for quenched and tempered springs
ISO 2604-2:1975	Steel products for pressure purposes - Quality requirements - Part 2: Wrought seamless tubes
ISO 3290:1975	Rolling bearings - Bearing parts - Balls for rolling bearings
ISO 3310:1990	Test sieves - Technical requirements and testing
ISO 4788 : 1980	Laboratory glassware - Graduated measuring cylinders
ISO 5725:1986	Precision of test methods - Determination of repeatability and reproducibility by inter-laboratory tests