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Railway applications - Braking - Brake blocks

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Railway applications - Braking - Brake blocks

Applications ferroviaires - Freinage - Semelles de frein

Bahnanwendungen - Bremse - Bremsklotzsohlen

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Contents

Page

| | |
|--|----|
| Foreword..... | 7 |
| Introduction | 8 |
| 1 Scope | 9 |
| 2 Normative references | 9 |
| 3 Terms and definitions | 10 |
| 4 Abbreviations | 11 |
| 5 Overall requirements | 12 |
| 5.1 Deviations from requirements | 12 |
| 5.2 Functions | 12 |
| 5.3 Operational criteria | 13 |
| 5.3.1 Friction material performance | 13 |
| 5.3.2 Service performance | 13 |
| 5.3.3 Brake block characteristics | 14 |
| 6 Acceptance procedure | 14 |
| 6.1 Brake block performance requirements | 14 |
| 6.1.1 General | 14 |
| 6.1.2 Category A | 14 |
| 6.1.3 Category B | 15 |
| 6.1.4 Category C | 15 |
| 6.2 Approval test requirements | 15 |
| 6.3 Dynamometer specification | 18 |
| 7 Category A requirements | 18 |
| 7.1 Brake block characteristics | 18 |
| 7.1.1 Standard design | 18 |
| 7.1.2 Brake block characterization test | 18 |
| 7.1.3 Brake block mechanical characteristics for service operation | 18 |
| 7.2 Dynamic friction performance | 19 |
| 7.2.1 Generic requirements for assessment process | 19 |
| 7.2.2 Bedded and non bedded performance | 19 |
| 7.2.3 Variation in mean coefficient of friction in dry condition for a brake to rest | 19 |
| 7.2.4 Mean friction coefficient variation under wet conditions | 19 |
| 7.2.5 Mean friction coefficient variation at high initial temperature | 20 |
| 7.2.6 Mean friction coefficient variation after simulation of a downhill brake application | 20 |
| 7.2.7 Instantaneous friction coefficient variation during simulation of a downhill brake application | 20 |
| 7.2.8 Variation in instantaneous friction for a brake to rest | 22 |
| 7.3 Static friction coefficient | 22 |
| 7.4 Extreme winter conditions (freight wagons) | 22 |
| 7.4.1 General | 22 |
| 7.4.2 Dynamometer test | 23 |
| 7.4.3 Train brake test | 23 |
| 7.5 Locked brake (fusibility) | 23 |
| 7.5.1 Generic prescriptions | 23 |
| 7.5.2 Specific prescriptions for freight wagons | 24 |
| 8 Category B requirements | 24 |
| 8.1 Vehicle brake test | 24 |
| 8.2 Dynamometer wear test (friction couple) | 25 |

| | | |
|--|--|----|
| 8.3 | Dynamic friction performance | 25 |
| 8.4 | In service assessment | 25 |
| 9 | Category C requirements..... | 25 |
| 9.1 | Metal pick up..... | 25 |
| 9.2 | Influence on track circuit operation (shuntage) | 26 |
| 10 | Environmental issues | 26 |
| 10.1 | General | 26 |
| 10.2 | Noise | 26 |
| 10.3 | Odour | 26 |
| 10.4 | Smoke, fumes and sparkling..... | 26 |
| 10.5 | Recycling and disposal..... | 26 |
| 11 | Marking..... | 27 |
| Annex A (normative) Summary of Dynamometer test programs and acceptance criteria | | 28 |
| Annex B (normative) General requirements for conducting dynamometer test programmes | | 30 |
| B.1 | General | 30 |
| B.2 | Rotation and ventilation conditions | 30 |
| B.3 | Brake application timing t_s | 30 |
| B.4 | Bedding | 30 |
| B.5 | Wear | 30 |
| B.6 | Roughness index of the wheel tread | 31 |
| B.7 | Interruption of the tests | 31 |
| B.8 | Temperatures | 31 |
| B.9 | Wet conditions | 31 |
| B.10 | Test of simulation of downhill..... | 32 |
| B.11 | Test wheels | 32 |
| Annex C (normative) Composite brake blocks (K) (2Bg – 2Bgu)– Demonstration of friction properties for S and SS (S/SS) – braked freight wagons ($v_{\max} = 120$ km/h) | | 33 |
| C.1 | Program for performance tests..... | 33 |
| C.2 | Program for simulation brake assessment..... | 38 |
| C.3 | Dispersion range of mean friction coefficients | 39 |
| C.4 | Dispersion range of instantaneous friction coefficients..... | 42 |
| Annex D (normative) Composite brake blocks (LL) – Demonstration of friction properties for S and SS (S/SS) – braked freight wagons ($v_{\max} = 120$ km/h) | | 44 |
| D.1 | Program for performance tests..... | 44 |
| D.2 | Program for simulation brake assessment..... | 48 |
| D.3 | Dispersion range of mean friction coefficients | 50 |
| D.4 | Dispersion range of instantaneous friction coefficients..... | 52 |
| Annex E (normative) Composite brake blocks (K) (1Bg)– Demonstration of friction properties for S and SS (S/SS) – braked freight wagons ($v_{\max} = 120$ km/h) | | 53 |
| E.1 | Program for performance tests..... | 53 |
| E.2 | Dispersion range of mean friction coefficients | 56 |

| | | |
|---|---|-----|
| E.3 | Dispersion range of instantaneous friction coefficients | 58 |
| Annex F (normative) Composite brake blocks (L) – Demonstration of friction properties for extra tread brake of coach..... | | |
| F.1 | Program for performance tests | 59 |
| F.2 | Program for simulation brake assessment..... | 62 |
| F.3 | Dispersion range of mean friction coefficients in dry condition | 63 |
| F.4 | Dispersion range of mean friction coefficients in wet condition..... | 64 |
| F.5 | Dispersion range of instantaneous friction coefficients | 65 |
| Annex G (normative) Composite brake blocks (K) – Demonstration of friction properties for locomotives | | |
| G.1 | Program for performance tests | 67 |
| G.2 | Program for simulation brake assessment..... | 70 |
| G.3 | Dispersion range of mean friction coefficients in dry condition | 71 |
| G.4 | Dispersion range of mean friction coefficients in wet condition..... | 72 |
| G.5 | Dispersion range of instantaneous friction coefficients | 73 |
| Annex H (normative) Composite brake blocks (K) – Demonstration of friction properties for EMU – DMU..... | | |
| H.1 | Program for performance tests | 75 |
| H.2 | Program for simulation brake assessment..... | 80 |
| H.3 | Dispersion range of mean friction coefficients in dry condition | 81 |
| H.4 | Dispersion range of mean friction coefficients in wet condition..... | 82 |
| H.5 | Dispersion range of instantaneous friction coefficients | 83 |
| Annex I (normative) Composite brake blocks (K) – Demonstration of friction properties for High speed train (motor bogie) | | |
| I.1 | Program for performance tests | 85 |
| I.2 | Program for simulation brake assessment..... | 88 |
| I.3 | Dispersion range of mean friction coefficients in dry condition | 89 |
| I.4 | Dispersion range of mean friction coefficients in wet condition..... | 91 |
| I.5 | Dispersion range of instantaneous friction coefficients | 92 |
| Annex J (informative) Dynamometer test program – Generic test program | | |
| J.1 | General..... | 94 |
| J.2 | Generic test program | 94 |
| J.3 | Definitions | 97 |
| J.4 | Principle of assessment and pass/fail criteria..... | 98 |
| Annex K (normative) Dynamometer Test program to detect the formation of metal pick-up at the brake block | | |
| K.1 | Test program for freight wagons with brake blocks type K and LL | 99 |
| K.2 | Test program for locomotives with brake blocks type K | 101 |
| K.3 | Test program for EMU – DMU with brake blocks type K | 103 |
| K.4 | Test program for High speed train with brake blocks type K | 106 |

| | |
|--|------------|
| Annex L (normative) Dynamometer test program to demonstrate the extreme winter braking properties | 109 |
| L.1 Test program for freight wagons with brake blocks type K..... | 109 |
| L.2 Test program for freight wagons with brake blocks type LL..... | 111 |
| L.3 Specific requirements for conducting Test Programs L.1 and L.2 | 112 |
| L.4 Process of assessment and past fail criteria for test programs L.1 and L.2 | 113 |
| L.5 Generic flow chart to perform test program | 114 |
| L.6 Detailed flow chart to perform test program (example brake block K)..... | 115 |
| Annex M (normative) Test run to demonstrate the extreme winter braking properties brake blocks K – LL for freight wagons..... | 118 |
| M.1 General | 118 |
| M.2 Test conditions | 118 |
| M.3 Bases for assessment..... | 119 |
| M.4 Assessment of measurement data and pass/fail criteria | 121 |
| Annex N (normative) Dynamometer Test program to simulate “Locked brake” | 123 |
| N.1 Test program for freight wagons with brake blocks type K and LL..... | 123 |
| N.2 Test program for locomotives with brake blocks type K | 124 |
| N.3 Test program for EMU – DMU with brake blocks type K..... | 125 |
| N.4 Test program for High speed train with brake blocks type K..... | 126 |
| Annex O (normative) Dynamometer test program to demonstrate the compatibility with track circuits | 127 |
| O.1 General | 127 |
| O.2 Short description of the measuring method used | 127 |
| O.3 Schematic diagram of test set up | 127 |
| O.4 Flow chart to perform test program | 129 |
| O.5 Preparation of the disc and the rollers..... | 129 |
| O.6 Preparation of the samples of brake block..... | 129 |
| O.7 Contamination of disc..... | 130 |
| O.8 Measurements | 131 |
| O.9 Assessment of the results..... | 132 |
| Annex P (informative) Vehicle test to demonstrate the compatibility with track circuits | 134 |
| P.1 General | 134 |
| P.2 Test conditions | 134 |
| P.3 Assessment of results | 135 |
| P.4 Pass/fail criteria | 136 |
| Annex Q (informative) Dynamometer test program – Determination of static friction coefficient | 138 |
| Q.1 Test program for freight wagons with brake blocks type K and LL..... | 138 |
| Q.2 Test program for EMU – DMU and Locomotive with brake blocks type K | 139 |
| Q.3 Test program for High speed train with brake blocks type K..... | 140 |

| | | |
|-------------------------------|--|------------|
| Q.4 | Specific Requirements for conducting dynamometer test programmes Q.1 to Q.3 | 140 |
| Annex R (informative) | Dynamometer test program – Simulation of service conditions for freight wagons..... | 143 |
| R.1 | Simulation freight wagon with brake block type K 2Bgu | 143 |
| R.2 | Simulation freight wagon with brake block type LL 2Bgu | 145 |
| Annex S (normative) | Interchangeability, rejection lugs and critical dimensions | 148 |
| Annex T (normative) | Brake block shear and flexural strength tests..... | 151 |
| T.1 | General..... | 151 |
| T.2 | Shear strength test | 151 |
| T.3 | Flexural strength test | 152 |
| Annex U (normative) | Limitation of permissible mechanical damage of brake block..... | 154 |
| U.1 | General..... | 154 |
| U.2 | Cracked through to back-plate..... | 154 |
| U.3 | Crumbling of the friction material | 155 |
| U.4 | Metal pick-up..... | 155 |
| U.5 | Detachment from back-plate | 156 |
| U.6 | Cracks in the direction of wheel circumference..... | 156 |
| U.7 | Detachment of the friction material | 156 |
| U.8 | Interface with the brake block holder | 156 |
| Annex V (normative) | In service assessment of brake block..... | 158 |
| V.1 | General..... | 158 |
| V.2 | Freight wagon | 158 |
| V.3 | Coach | 159 |
| V.4 | Locomotive..... | 159 |
| V.5 | EMU-DMU..... | 160 |
| V.6 | High speed train..... | 160 |
| V.7 | Description of areas to be monitored and additional measures | 161 |
| V.8 | Pass/fail criteria | 162 |
| Annex W (informative) | Complementary definitions and abbreviations | 163 |
| Annex X (informative) | Brake block characterization test..... | 165 |
| Annex ZA (informative) | Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC | 166 |
| Bibliography | | 169 |

Foreword

This document (EN 16452:2015) has been prepared by Technical Committee CEN/TC 256 "Railway applications", 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 January 2016, and conflicting national standards shall be withdrawn at the latest by January 2016.

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 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 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

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, Former Yugoslav Republic of Macedonia, 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.

Introduction

For environmental reasons (reduction of rolling noise), this European Standard does not cover cast iron brake block requirements, although cast iron brake block technology is still widely used in Europe. Cast iron has already been replaced by composite materials for new rolling stock builds and major steps have been taken by EEC (TSI) and UIC in 2004 to accelerate the change from cast iron to composite materials.

When published this European Standard will replace the current UIC requirements for technical approval of brake blocks. The requirements of this EN are based on the state of art from UIC leaflet and a European project "Euro Rolling Silently".

1 Scope

This European Standard gives the requirements for the design, dimensions, performance, and testing of a brake block (otherwise known as brake shoe insert) that acts on the wheel tread as part of a tread brake system. This European Standard does not cover cast iron brake block requirements.

This European Standard is applicable to brake blocks of either “K”, “L”, or “LL” friction level designed to be fitted to tread braked rail vehicles.

This European Standard contains the requirements for interfacing the brake block with the rail vehicle, the testing procedures in order to confirm that it satisfies the basic safety and technical interchangeability requirements, the material control procedures to ensure product quality, reliability and conformity and considers health and environmental needs.

2 Normative references

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

EN 13452-1, *Railway applications — Braking — Mass transit brake systems — Part 1: Performance requirements*

EN 13452-2, *Railway applications — Braking — Mass transit brake systems — Part 2: Methods of test*

EN 13715, *Railway applications — Wheelsets and bogies — Wheels — Tread profile*

EN 13979-1:2003+A2:2011, *Railway applications — Wheelsets and bogies — Monobloc wheels — Technical approval procedure — Part 1: Forged and rolled wheels*

EN 14033-1, *Railway applications — Track — Railbound construction and maintenance machines — Part 1: Technical requirements for running*

EN 14033-2:2008+A1:2011, *Railway applications — Track — Railbound construction and maintenance machines — Part 2: Technical requirements for working*

EN 14198, *Railway applications — Braking — Requirements for the brake system of trains hauled by a locomotive*

EN 14478, *Railway applications — Braking — Generic vocabulary*

EN 15179, *Railway applications — Braking — Requirements for the brake system of coaches*

EN 15313, *Railway applications — In-service wheelset operation requirements — In-service and off-vehicle wheelset maintenance*

EN 15663, *Railway applications — Definition of vehicle reference masses*

EN 15734-1, *Railway applications — Braking systems of high speed trains — Part 1: Requirements and definitions*

EN 15734-2, *Railway applications — Braking systems of high speed trains — Part 2: Test methods*

EN 16185-1, *Railway applications — Braking systems of multiple unit trains — Part 1: Requirements and definitions*

EN 16185-2, *Railway applications — Braking systems of multiple unit trains — Part 2: Test methods*

EN 50126-1, *Railway applications — The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS) — Part 1: Basic requirements and generic process*

EN ISO 4287, *Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287)*

EN ISO 4288, *Geometrical product specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture (ISO 4288)*

UIC 544-1, *Brakes — Braking power*

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