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Railway applications - Braking - Brake pads

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/24

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**EN 15328:2020+A1**

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## Railway applications - Braking - Brake pads

Applications ferroviaires - Freinage - Garniture de frein

Bahnanwendungen - Bremsen - Bremsbeläge

This European Standard was approved by CEN on 15 June 2020 and includes Amendment 1 approved by CEN on 2 March 2024.

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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 15328:2020+A1:2024) 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of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

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

This document supersedes A1 EN 15328:2020.

EN 15328:2020+A1:2024 includes the following significant technical changes with respect to EN 15328:2020:

- the Introduction has been modified;
- new terms 3.7 “continuous brake application 1” and 3.8 “continuous brake application 2” have been added;
- 5.1. “Classification of brake pads” has been modified;
- 5.13.1 “Classification scheme for locomotives, MUs, high-speed trains, freight wagon and coaches”, Table 5 has been modified;
- 5.14 “Interchangeability of brake pads” has been modified;
- Clause A.9 “Methods of temperature measurements” has been modified;
- Annex B “Test programs for classes A1 to G1”, Tables B.2 to B.11 have been modified;
- Annex C “Test programs for coaches”, Table C.1 has been modified;
- Annex E, E.1 “Use of the generic test programs”, Table E.1, E.2.2 “Brake steps”, E.2.4 “Continuous brake applications”, Table E.5 and E.3.5 “Power for continuous brake applications” have been modified;
- new informative Annex I “Example of the declaration of conformity” has been added;
- Annex ZA has been deleted. A1

This document includes Amendment 1 approved by CEN on 2 March 2024.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia,

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Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## Introduction

This document gives the requirements for the design, dimensions, performance and testing of a brake pad which, as part of a disc brake system, acts on one friction face of a brake disc in accordance with EN 14535-1 and EN 14535-2.

**A1** *deleted text* **A1**

This document contains the requirements for interfacing the brake pads with the rail vehicle, the testing procedures in order to confirm that it satisfies the basic safety and technical requirements, the material control procedures to ensure product quality, reliability and conformity, as well health and environmental requirements are fulfilled.

**A1** *deleted text* **A1**



## EN 15328:2020+A1:2024 (E)

### 1 Scope

This document specifies requirements for pads for disc brakes of railway rolling stock.

The document defines requirements and generic test programs for brake pads on dynamometer. This document does not cover mandatory tests to verify stopping distances in addition to laboratory, bench test and in-service tests. In order to qualify the brake pad performance in accordance with the classification the standard provides fixed parameter figures as categories defined in paragraph classification scheme.

This document is not applicable for urban rail applications.


### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 14478:2017, *Railway applications - Braking - Generic vocabulary*

EN 14535-1:2019, *Railway applications - Brake discs for railway rolling stock - Part 1: Brake discs pressed or shrunk onto the axle or drive shaft, dimensions and quality requirements*

EN 14535-2:2019, *Railway applications - Brake discs for railway rolling stock - Part 2: Brake discs mounted onto the wheel, dimensions and quality requirements*

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EN 16451:2015, *Railway applications - Braking - Brake pad holder*

 EN ISO 21920-2:2022, *Geometrical product specifications (GPS) — Surface texture: Profile — Part 2: Terms, definitions and surface texture parameters (ISO 21920-2: 2021, Corrected version 2022-06)* 

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**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**