



NSAI
Standards

Irish Standard
I.S. EN 16432-3:2021

Railway applications - Ballastless track systems - Part 3: Acceptance

I.S. EN 16432-3:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 16432-3:2021

Published:

2021-11-03

This document was published under the authority of the NSAI and comes into effect on:

2021-11-22

ICS number:

93.100

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 16432-3:2021 is the adopted Irish version of the European Document EN 16432-3:2021, Railway applications - Ballastless track systems - Part 3: Acceptance

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 16432-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2021

ICS 93.100

English Version

Railway applications - Ballastless track systems - Part 3: Acceptance

Applications ferroviaires - Systèmes de voies sans
ballast - Partie 3 : Réception

Bahnwendungen - Feste Fahrbahn - Teil 3: Abnahme

This European Standard was approved by CEN on 13 September 2021.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

Contents	Page
European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Symbols and abbreviations	5
5 General	6
5.1 Overview	6
5.2 Validation of fitness for construction of a novel ballastless track system design.....	6
5.3 Establishing the criteria for acceptance of work.....	7
5.4 Integration in the assurance process/Works Acceptance Plan (WAP)	7
6 Acceptance of works	8
6.1 Track geometry and position.....	8
6.2 Track stiffness	9
6.3 Track stability	10
6.4 Durability	10
6.5 Drainage	11
7 Acceptance of substructure and subsystems	11
7.1 General.....	11
7.2 Acceptance of substructures	11
7.3 Acceptance of pavements.....	13
7.4 Acceptance of intermediate layer	17
7.5 Acceptance of prefabricated element (sleeper, block, slab, frame)	18
7.6 Acceptance of fastening systems	18
7.7 Acceptance of rails	18
7.8 Specific measures for switches and crossings and rail expansion devices	19
8 Acceptance of system specific installation methods	19
8.1 Ballastless track system with continuously supported or embedded rails.....	19
8.2 Ballastless track system with discrete rail seats on prefabricated element, supported by a pavement.....	20
8.3 Ballastless track system with discrete rail seats on prefabricated element, independent from the surrounding concrete filling layer or pavement.....	21
8.4 Ballastless track system with discrete rail seats on prefabricated element, monolithically integrated in a pavement	22
8.5 Ballastless track system with discrete rail seats on a concrete pavement	22
Annex A (informative) Risk assessment of novelty in a proposed ballastless track system design	24
Annex B (informative) Material acceptance tests for intermediate layers	25
Bibliography	26

European foreword

This document (EN 16432-3:2021) 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 May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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.

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, 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, Turkey and the United Kingdom.

EN 16432-3:2021 (E)

1 Scope

This document specifies the implementation of ballastless track system designs and the criteria for the acceptance of works concerning construction of ballastless track systems. It does not include any criteria for inspecting, maintaining, repairing and replacing ballastless track systems during operation.

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 206, *Concrete — Specification, performance, production and conformity*

EN 12390-5, *Testing hardened concrete — Part 5: Flexural strength of test specimens*

EN 13231-1:2013, *Railway applications — Track — Acceptance of works — Part 1: Works on ballasted track — Plain line, switches and crossings*

EN 13848-2, *Railway applications — Track — Track geometry quality — Part 2: Measuring systems — Track recording vehicles*

EN 13848-6:2014+A1:2020, *Railway applications — Track — Track geometry quality — Part 6: Characterisation of track geometry quality*

EN 13877-2, *Concrete pavements — Part 2: Functional requirements for concrete pavements*

EN 14587 (all parts), *Railway applications — Infrastructure — Flash butt welding of new rails*

EN 14730 (all parts), *Railway applications — Track — Aluminothermic welding of rails*

EN 16432-1:2017, *Railway applications — Ballastless track systems — Part 1: General requirements*

EN 16432-2:2017, *Railway applications — Ballastless track systems — Part 2: System design, subsystems and components*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

tolerance

permissible deviation from reference or specified value

3.2

relative track geometry

group of parameters defining the position of the rails, usually the following: track gauge, alignment, longitudinal level, twist and cross level

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-