

<b>STN</b>	<b>Železničná infraštruktúra Systémy upevňovania koľajníc Časť 4: Skúšobná metóda na odolnosť voči cyklickému zaťaženiu (ISO 22074-4: 2022)</b>	<b>STN EN ISO 22074-4</b>  73 6331
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Railway infrastructure - Rail fastening systems - Part 4: Test methods for resistance to repeated loading (ISO 22074-4:2022)

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. 05/24

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EUROPEAN STANDARD

EN ISO 22074-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2024

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English Version

## Railway infrastructure - Rail fastening systems - Part 4: Test methods for resistance to repeated loading (ISO 22074-4:2022)

Infrastructure ferroviaire - Systèmes de fixation du rail  
- Partie 4: Méthode d'essai pour la détermination de  
résistance aux charges répétitives (ISO 22074-4:2022)

Bahninfrastruktur - Schienenbefestigungssysteme -  
Teil 4: Prüfverfahren bei wiederkehrenden  
Belastungen (ISO 22074-4:2022)

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**EN ISO 22074-4:2024 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

The text of ISO 22074-4:2022 has been prepared by Technical Committee ISO/TC 269 “Railway applications” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22074-4:2024 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of an identical text or by endorsement, at the latest by September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

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## **Endorsement notice**

The text of ISO 22074-4:2022 has been approved by CEN as EN ISO 22074-4:2024 without any modification.

# INTERNATIONAL STANDARD

# ISO 22074-4

First edition  
2022-08

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## Railway infrastructure — Rail fastening systems —

### Part 4: Test methods for resistance to repeated loading

*Infrastructure ferroviaire — Systèmes de fixation du rail —*

*Partie 4: Méthode d'essai pour la détermination de résistance aux  
charges répétitives*



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# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Symbols</b> .....	<b>2</b>
<b>5 Test procedure</b> .....	<b>3</b>
5.1 General principle .....	3
5.2 Apparatus.....	4
5.2.1 Rail.....	4
5.2.2 Actuator.....	4
5.2.3 Load application head.....	4
5.2.4 Displacement measuring instruments .....	4
5.2.5 Force measuring instruments.....	5
5.3 Test specimens.....	5
5.3.1 Sleeper or other rail support.....	5
5.3.2 Fastening.....	5
5.4 Procedure for one rail.....	5
5.4.1 General .....	5
5.4.2 Preparation for test .....	5
5.4.3 Clamping force.....	6
5.4.4 Longitudinal rail restraint.....	6
5.4.5 Vertical static stiffness of fastening assembly .....	6
5.4.6 Cyclic loading.....	7
5.4.7 Repeat tests.....	11
5.4.8 Final inspection.....	11
5.5 Procedure for two rails.....	11
5.5.1 General .....	11
5.5.2 Apparatus .....	11
5.5.3 Procedure .....	12
<b>6 Test report</b> .....	<b>13</b>
<b>Bibliography</b> .....	<b>15</b>

## ISO 22074-4:2022(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 269, *Railway applications*, Subcommittee SC 1, *Infrastructure*.

A list of all parts in the ISO 22074 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).



# Railway infrastructure — Rail fastening systems —

## Part 4:

# Test methods for resistance to repeated loading

## 1 Scope

This document specifies a laboratory test procedure for applying repeated load cycles which generate displacement cycles representative of the displacements caused by traffic on railway track. It is used for assessing the long-term performance of rail fastening systems.

This document is applicable to surface mounted rail on sleepers, bearers and slab track and embedded rail.

This test procedure applies to a complete fastening assembly.

## 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.

ISO 22074-1, *Railway infrastructure — Rail fastening systems — Part 1: Vocabulary*

ISO 22074-2, *Railway infrastructure — Rail fastening systems — Part 2: Test method for longitudinal rail restraint*

ISO 22074-7, *Railway infrastructure — Rail fastening systems — Part 7: Test method for clamping force and uplift stiffness*

ISO 22074-8:2022, *Railway infrastructure — Rail fastening systems — Part 8: Test method for vertical stiffness*

ISO 7500-1:2018, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system*

ISO 9513, *Metallic materials — Calibration of extensometer systems used in uniaxial testing*

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