



**SLOVENSKI STANDARD**  
**SIST EN 13146-6:2004**

**01-marec-2004**

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Železniške aplikacije - Prosti - Testni postopki za sisteme za pritrditev - Del 6: Vpliv  
hude okoljske pogoje

Railway applications - Track - Test methods for fastening systems - Part 6: Effect of  
severe environmental conditions

Bahnanwendungen - Oberbau - Prüfverfahren für Schienenbefestigungssysteme - Teil 6:  
Auswirkung von Umwelteinflüssen

Applications ferroviaires - Voie - Méthodes d'essai pour les systèmes de fixation - Partie  
6: Effet résultant de conditions environnementales rigoureuses

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**Ta slovenski standard je istoveten z: EN 13146-6:2002**

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**ICS:**

93.100

Gradnja železnic

Construction of railways

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**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 13146-6**

May 2002

ICS 19.040; 93.100

English version

## Railway applications - Track - Test methods for fastening systems - Part 6: Effect of severe environmental conditions

Applications ferroviaires - Voie - Méthodes d'essai pour les systèmes de fixation - Partie 6: Effet résultant de conditions environnantes rigoureuses

Bahnanwendungen - Oberbau - Prüfverfahren für Befestigungssysteme - Teil 6: Auswirkung von starken Umwelteinflüssen

This European Standard was approved by CEN on 6 March 2002.

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 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 Management Centre 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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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## Foreword

This document (EN 13146-6:2002) 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 November 2002, and conflicting national standards shall be withdrawn at the latest by November 2002.

This document has been prepared under mandates (M/024<sup>1</sup>, M/275<sup>2</sup>) given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

No existing European Standard is superseded.

This European Standard is one of the series EN 13146 as listed below:

- *Part 1: Determination of longitudinal rail restraint;*
- *Part 2: Determination of torsional resistance;*
- *Part 3: Determination of attenuation of impact loads;*
- *Part 4: Effect of repeated loading;*
- *Part 5: Determination of electrical resistance;*
- *Part 6: Effect of severe environmental conditions;*
- *Part 7: Determination of clamping force;*
- *Part 8: In service testing.*

These support the requirements in the series EN 13481 "Railway applications — Track — Performance requirements for fastening systems", Parts 1-7.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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<sup>1</sup> Railway equipment.

<sup>2</sup> Standardization in the field of Railway Equipment on the Interoperability of the Trans-European High-Speed Rail System.

## Introduction

This part of EN 13146 includes the only test procedure to find the effect of severe environmental conditions which is generally available at present. It is hoped that test procedures covering other environmental conditions will be included in future revisions.

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## 1 Scope

This European Standard specifies a laboratory test procedure for finding the effect of exposure to severe environmental conditions on the fastening system.

This test procedure applies to a complete fastening assembly.

## 2 Normative references

This European Standard incorporates by dated or 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 (including amendments).

EN 13481-1, *Railway applications — Track — Performance requirements for fastening systems — Part 1: Definitions.*

ISO 9227, *Corrosion test in artificial atmospheres — Salt spray tests.*

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13481-1 apply.

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## 4 Principle

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The complete fastening assembly is exposed to a salt spray and the effect on ease of dismantling, and reassembly, and condition of individual components is recorded.

## 5 Apparatus

### 5.1 Salt spray equipment

This shall conform with ISO 9227 for the NSS (neutral salt spray) test.

### 5.2 Tools

Manually operated tools normally used for installing and removing the clamping device from the fastening assembly.

## 6 Test specimens

Each specimen shall consist of a complete fastening assembly with a baseplate or a section of sleeper, bearer or element of slab track where no baseplate is used. This shall include a short length of rail of the section for which the fastening is designed.

## 7 Procedure

Visually examine and record the condition of each component. Then fit the rail to the section of sleeper or baseplate using the fastening components as they are to be assembled in track.

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Subject to the neutral salt spray in accordance with ISO 9227 for 300 h. Remove the clamping device using the tools provided; visually examine all the components and record their condition. Then reassemble the fastening system using the tools provided.

Record any failure to dismantle or reassemble the fastening with the tools provided.

**8 Test report**

The test report shall include at least the following information:

- a) Number, date of issue and title of this standard;
- b) name and address of laboratory performing the test;
- c) date test performed;
- d) name, designation and description of fastening assembly, including individual components, tested;
- e) origin of test specimens;
- f) support used for assembly;
- g) rail section used in test;
- h) tools provided to assemble and dismantle the assembly;
- i) change in appearance (if any) of each component during test;
- j) any failure to dismantle or re-assemble the fastening assembly with the tools provided.

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