

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13146-6:2012 sisaldab Euroopa standardi EN 13146-6:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 13146-6:2012 consists of the English text of the European standard EN 13146-6:2012.
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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 Schienenbefestigungssysteme - Teil 6: Auswirkung von extremen Umwelteinflüssen

This European Standard was approved by CEN on 26 November 2011.

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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.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 13146-6:2012) 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of an identical text or by endorsement, at the latest by October 2012, and conflicting national standards shall be withdrawn at the latest by October 2012.

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 supersedes EN 13146-6:2002.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

In this revision of EN 13146-6:2002 the scope has been enlarged to include embedded rail with mechanical fastenings.

This European Standard is one of the series EN 13146 "*Railway applications — Track — Test methods for fastening systems*" which consists of the following parts:

- *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;*
- Part 9: Determination of stiffness.

These support the requirements in the series EN 13481 "*Railway applications — Track — Performance requirements for fastening systems*".

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, 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

This part of EN 13146 includes the only test procedure to find the effect of severe environmental conditions which is generally available at present.

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 including embedded rail with mechanical fastenings. It is not applicable to embedded rail systems relying on adhesive components to secure the rail.

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 13481-1:2012, *Railway applications — Track — Performance requirements for fastening systems — Part 1: Definitions*

EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13481-1:2012 apply.

4 Principle

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 EN 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. For fastening assemblies for embedded rail, the length of the test specimen shall be equal to the nominal sleeper spacing in EN 13481-1:2012, 3.1.