Technical Specification

ISO/TS 17539

Railway applications — Track foundation — Observation and evaluation method of railway subgrade settlement and deformation

Infrastructure ferroviaire — Fondation des voies — Méthode d'observation et d'évaluation du tassement et de la déformation des plateformes ferroviaires

First edition
2026-03

Reference number
ISO/TS 17539:2026(en)

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Published in Switzerland

Contents

Page

Foreword

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

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.

Introduction

This document is intended to be used by customers, designers, specifiers of observation and evaluation of settlement and deformation of railway subgrade and contractor.

Railway applications — Track foundation — Observation and evaluation method of railway subgrade settlement and deformation

1 Scope

This document specifies the general requirements for the observation and evaluation method of railway earthworks (substructure and foundation ground) settlement and deformation for new-built and existing railway.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology 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
ballast
crushed stone or coarse gravel used to construct the top layer of the track bed

3.2
ballastless track
track bed built without a *ballast* (3.1) layer, usually on concrete slabs

3.3
break angle
angle formed by the *differential settlement* (3.8) of the trackbed in the *transition section* (3.20)

3.4
settlement
vertical displacement (compression), usually positive in the downward direction, due to an imposed load or lowering of the groundwater table

Note 1 to entry: Settlement can be due to serval causes primary compression results from the process of consolidation and secondary compression (creep) caused by the flow of soil grains.

3.5
culvert
covered channel used to convey a watercourse, passage and others below ground, mainly under railways

3.6
cutting
cut
permanent excavation formed by removing soil or rock to create a level or graded path to allow the formation of a railway