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NSAI Standards

Irish Standard
I.S. EN 17282:2020

Railway applications - Infrastructure - Under ballast mats

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NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 17282

October 2020

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English Version

Railway applications - Infrastructure - Under ballast mats

Applications ferroviaires - Infrastructure - Tapis sous ballast

Bahnanwendungen - Infrastruktur - Unterschottermatten

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European foreword

This document (EN 17282:2020) 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of an identical text or by endorsement, at the latest by April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

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Introduction

In a track for railway vehicles, the under ballast mat (UBM) is a structural element which is placed between the substructure and the ballast layer. This document applies to the performance-related properties of this mat.

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1 Scope

This document is applicable to under ballast mats used in ballasted track and defines the test procedures and their evaluation criteria.

This document provides particular information in the following areas:

— test methods, test arrangements and evaluation criteria of under ballast mats;

— data supplied by the purchaser and by the supplier;

— definition of general process of design approval tests;

— definition of routine tests.

This document defines the specific test procedures for under ballast mats:

— stiffness tests;

— fatigue tests;

— tests for severe environmental conditions.

This document also sets out procedures for testing fitness for purpose and provides information on quality monitoring as part of quality assurance procedures. This document does not, however, contain requirements pertaining to the functions of under ballast mats. It is the responsibility of the purchaser to define these requirements and to choose the optional tests.

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 10027 (all parts), *Designation systems for steels*

EN 13450, *Aggregates for railway ballast*

EN 13674-1, *Railway applications - Track - Rail - Part 1: Vignole railway rails 46 kg/m and above*

EN ISO 1856, *Flexible cellular polymeric materials - Determination of compression set (ISO 1856)*

EN ISO 7500-1, *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 7500-1)*

EN ISO 9513:2012, *Metallic materials - Calibration of extensometer systems used in uniaxial testing (ISO 9513:2012)*

EN 22768 (all parts), *General tolerances (ISO 2768, all parts)*

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