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Railway applications - Infrastructure - Mechanical requirements for joints in running rails

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mécaniques des joints dans les rails de roulement

Bahnanwendungen - Infrastruktur - Mechanische
Anforderungen an Fahrschienengelenke

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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EN 16843:2024 (E)**European foreword**

This document (EN 16843:2024) 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of an identical text or by endorsement, at the latest by July 2024, and conflicting national standards shall be withdrawn at the latest by July 2024.

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Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document deals with mechanical rail joints for permanent installation with flat bottom rails 46 kg/m and above.

The scope of this document is:

- to establish requirements for insulated and non-insulated fish-plated rail joints, for stressed rail (continuous welded rail, CWR) and unstressed rail (jointed track);
- to define mechanical and electrical requirements for type approval and for acceptance of insulated rail joints which are manufactured in a factory (prefab construction) as well as assembled on-site (site construction).

This document specifies the minimum requirements. Special applications as for instance tram systems can require different demands in certain paragraphs and are agreed between customer and supplier.

This document applies to rail joints formed of a pair of rails, with perpendicular or angled rails ends.

The scope of this document excludes all types of mechanical joints for temporary installation in track, used for example during track construction or for securing broken rails and welds before final repair. The scope also excludes expansion devices (covered in EN 13232-8), and special joints in switch constructions.

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 10025-2:2019, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10204, *Metallic products - Types of inspection documents*

EN 13674 (series), *Railway applications - Track - Rail*

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 21920-2, *Geometrical product specifications (GPS) - Surface texture: Profile - Part 2: Terms, definitions and surface texture parameters (ISO 21920-2)*

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