

DIN EN 13481-2:2012-08 (E)

Railway applications - Track - Performance requirements for fastening systems - Part 2: Fastening systems for concrete sleepers

Contents		Page
Foreword		3
Introduction		5
1 Scope		6
2 Normative references		6
3 Terms and definitions		7
4 Symbols		7
5 Requirements		9
5.1 Longitudinal rail restraint		9
5.2 Torsional resistance		9
5.3 Attenuation of impact loads		9
5.4 Pad and assembly stiffness		9
5.5 Effect of repeated loading		10
5.6 Electrical resistance of fastening system and sleeper		11
5.7 Effect of exposure to severe environmental conditions		11
5.8 Dimensions		11
5.9 Effect of fastening system tolerances on track gauge		12
5.10 Clamping force		13
5.11 Cast-in and glued-in fastening components		13
5.12 In-service testing		13
5.13 Attenuation of noise and vibration		13
6 Test specimens		13
7 Fitness for purpose		13
8 Marking, labelling and packaging		13
Annex A (normative) Vertical load test for cast-in and glued-in fastening components		14
A.1 Test procedure		14
A.2 Test report		15
Annex B (informative) Vibration and noise		16
B.1 General		16
B.2 Symbols		16
B.3 Parameters for environmental vibration calculations		16
B.4 Calculating the vibration attenuation		17
B.5 Environmental noise		17
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC		18
Bibliography		21