DIN EN 17682:2023-11 (E)

Railway applications - Infrastructure - Resilient element for floating slab system

Contents

Page

European foreword 4

Introduction 5

1 Scope 6

2 Normative references 7

3 Terms and definitions 7

4 Symbols and abbreviations 9

5 Loads applied to the REFS 11

6 Samples dimensions 12

7 Design approval tests and routine tests 12
7.1 General 12
7.2 Summary of design approval and routine tests 13
7.3 Requirements for specifications 13
7.3.1 Dimensions and mass 13
7.3.2 Static and dynamic vertical bedding modulus determined with flat plate (FP) 14
7.3.3 Acoustic bedding modulus 14
7.3.4 Fatigue test 16
7.3.5 Static horizontal bedding modulus 16
7.3.6 Water and climatic resistance of REFS 17
7.3.7 Ageing test with high temperatures 17

8 Data to be supplied 17
8.1 General 17
8.2 Data supplied by the purchaser (prior to the project design approval tests) 17
8.3 Data supplied by the supplier (after the project design approval tests and prior to first start-up of production) 18

9 Quality control 18

10 Marking, labelling and packaging 19

Annex A (normative) Flat plate (FP) -- Design of the FP 20

Annex B (normative) Data sheet 21

Annex C (normative) Bedding modulus and stiffness measurement determined with FP 22

C.1 Static test procedure 22
C.2 Dynamic test procedure 26

Annex D (normative) Fatigue test 29

D.1 Principle 29
D.2 Apparatus 29
D.3 Procedure 29

D.4 Test report 30

Annex E (informative) Static horizontal bedding modulus 31

E.1 Principle 31
E.2 Apparatus 31
E.3 Procedure 31
E.4 Test report 33

Annex F (informative) Water and climatic resistance 35

F.1 Principle 35
F.2 Apparatus 35
F.3 Procedure 35
F.4 Test report 37

Annex G (informative) Ageing test with high temperatures 38

G.1 Principle 38
G.2 Apparatus 38
G.3 Procedure 38
G.4 Test report 39

Bibliography 40