DIN EN 15594:2026-12 (E)

Railway applications - Infrastructure - Restoration of rails by electric arc welding

Contents

Page

European foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms, definitions and abbreviated terms 7

4 Consumable and WPS approval tests for SMAW electrodes and FCAW wires 8
4.1 General 8
4.2 Consumable and WPS approval model 8
4.3 Information for the test 9
4.4 Batch testing 10
4.5 Test requirements 10
4.6 Laboratory tests 11
4.7 Track trial tests 16
4.8 Evaluation, reporting and decision following track trials 17
4.9 Validation of consumables 18

5 Approval of contractors 18
5.1 Quality management systems 18
5.2 Inspection and testing 18
5.3 Subcontracting 18
5.4 Equipment 18
5.5 Welding activities 19
5.6 Storage and handling of welding consumables 19
5.7 Care of the infrastructure 19
5.8 Welding procedure specifications 19
5.9 Pre-heating of rails 19
5.10 Welders 19
5.11 Welder records 19
5.12 Supervision 20
5.13 Traceability 20
5.14 Audits 20
5.15 Training 20
5.16 Documentation 20

6 Personnel and qualification requirements 20
6.1 Training and qualification requirements 20
6.2 Diploma in electric arc welding of rails 21
6.3 Permit to restore rails by electric arc welding 21

7 Repair applications 23

Annex A (normative) Track trials supplementary information 24

Annex B (informative) Welding Procedure Specification (WPS) 25

Annex C (informative) Diploma in electric arc restoration welding of rails 27

Annex D (normative) Permit to restore rail by electric arc welding 28

Annex E (informative) Track components 29

Annex ZA (informative) Relationship between this European Standard and the essential requirements of EU Directive (EU) 2016/797 aimed to be covered 30

Bibliography 31