DIN EN ISO 18595:2007-12 (E)

Resistance welding - Spot welding of aluminium and aluminium alloys - Weldability, welding and testing (ISO 18595:2007)

Contents

Page

Foreword 3

1 Scope 4

2 Normative references 4

3 Terms and definitions 5

4 Symbols 8

5 Material 9
5.1 Form 9
5.2 Types of aluminium alloys 9

6 Surface conditions 9

7 Edge distance, edge conditions, form of component and weld spacing 9

8 Electrodes 10
8.1 Materials 10
8.2 Dimensions 10
8.3 Cooling electrodes 12

9 Weld assessment 12
9.1 General 12
9.2 Weldability test procedure 12
9.3 Procedure qualification tests 13
9.4 Production tests 14
9.5 Frequency of testing 14

10 Weld quality requirements 14
10.1 Weld diameter 14
10.2 Weld dimensions 15
10.3 Weld fracture mode 15
10.4 Weld strength 15
10.5 Weld appearance -- Surface condition 15

11 Multi-weld arrays 16

Annex A (informative) Recommendations for spot welding equipment 18

Annex B (informative) Typical spot welding conditions 19

Annex C (informative) Non-exhaustive list of aluminium alloys covered by this International Standard 20

Annex D (informative) Typical information to appear on a welding procedure sheet for spot welding 22

Bibliography 24