ISO 18595:2007-09 (E)

Resistance welding - Spot welding of aluminium and aluminium alloys - Weldability, welding and testing

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Symbols 5

5 Material 6
5.1 Form 6
5.2 Types of aluminium alloys 6

6 Surface conditions 6

7 Edge distance, edge conditions, form of component and weld spacing 6

8 Electrodes 7
8.1 Materials 7
8.2 Dimensions 7
8.3 Cooling electrodes 9

9 Weld assessment 9
9.1 General 9
9.2 Weldability test procedure 9
9.3 Procedure qualification tests 10
9.4 Production tests 11
9.5 Frequency of testing 11

10 Weld quality requirements 11
10.1 Weld diameter 11
10.2 Weld dimensions 12
10.3 Weld fracture mode 12
10.4 Weld strength 12
10.5 Weld appearance -- Surface condition 12

11 Multi-weld arrays 13

Annex A (informative) Recommendations for spot welding equipment 15

Annex B (informative) Typical spot welding conditions 16

Annex C (informative) Non-exhaustive list of aluminium alloys covered by this International Standard 17

Annex D (informative) Typical information to appear on a welding procedure sheet for spot welding 19

Bibliography 21