DIN EN ISO 15609-1:2019-12 (E)

Specification and qualification of welding procedures fo r metallic materials - Welding procedure specification - Part 1: Arc welding (IS O 15609-1:2019)

Contents

Page

European foreword ... **3**

Foreword ... **4**

Introduction ... **5**

1 Scope ... **6**

2 Normative references ... **6**

3 Terms and definitions ... **6**

4 Technical content of welding procedure specification (WPS) ... **7**

4.1 General ... 7
4.2 Related to the manufacturer ... 7
4.3 Related to the parent material ... 7
4.3.1 Parent material type ... 7
4.3.2 Material dimensions ... 7
4.4 Common to all welding procedures ... 7
4.4.1 Welding process ... 7
4.4.2 Joint design ... 7
4.4.3 Welding position ... 7
4.4.4 Joint preparation ... 8
4.4.5 Welding technique ... 8
4.4.6 Back gouging ... 8
4.4.7 Backing ... 8
4.4.8 Welding consumables ... 8
4.4.9 Electrical parameters ... 8
4.4.10 Mechanized and automatic welding ... 8
4.4.11 Preheating temperature ... 9
4.4.12 Interpass temperature ... 9
4.4.13 Preheat maintenance temperature ... 9
4.4.14 Postheating for hydrogen release ... 9
4.4.15 Post-weld heat treatment ... 9
4.4.16 Shielding gas ... 9
4.4.17 Heat input / Arc energy ... 9
4.5 Specific to a group of welding processes ... 9
4.5.1 Process 111 (Manual metal arc welding) ... 9
4.5.2 Process 12 (Submerged arc welding) ... 9
4.5.3 Process 13 (Gas-shielded metal arc welding) ... 10
4.5.4 Process 14 (Gas-shielded welding with non-consumable electrode) ... 10
4.5.5 Process 15 (Plasma arc welding) ... 10

Annex A (informative) **Welding Procedure Specification (WPS)** ... **11**

Bibliography ... **12**