DIN EN 10359:2023-07 (E)

Laser welded tailored blanks - Technical delivery conditions

Contents

Page

European foreword 3

1 Scope 4

2 Normative references 4

3 Terms and definitions 4

4 Requirements 5

5 Tolerances on dimensions, shape and packaging 5

6 Destructive testing of weld joints 5
6.1 Cup test 5
6.2 Cross section 5
6.3 Heat treatment for hot stamped blanks 5
6.4 Tensile testing for hot stamped blanks 5
6.5 Hardness test for hot stamped blanks 6
6.6 Tensile and hardness quality inspection interval for hot stamped LWB 6
6.7 Cross section measurement method 14

Annex A (normative) Tensile test failure assessment 17

A.1 Case 1 17
A.2 Case 2 17
A.3 Case 3 18
A.4 Case 4 18

Annex B (normative) Hardness assessment criteria for hot stamped LWB 19

B.1 Methodology 19
B.2 Determination of hardness 19
B.3 Requirement for minimum hardness of the weld seam 21
B.4 Requirement for maximum hardness of the weld seam for steel hardness > 400 HV 24
B.5 requirement for maximum hardness of the weld seam for steel hardness 400 HV 26

Bibliography 28