ISO 6892-4:2015-10 (E)

Metallic materials - Tensile testing - Part 4: Method of test in liquid helium

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Symbols and designations 4

5 Principle 4

6 Apparatus 4

7 Test piece 7
7.1 General 7
7.2 Standard round bar test piece 7
7.3 Alternatives 7
7.4 Sub-size test pieces 7
7.5 Sampling 7

8 Testing conditions 8
8.1 Test piece installation 8
8.2 Cooling procedure 8
8.3 Rate of testing 8
8.3.1 Rate limit 8
8.3.2 Rate selection 8

9 Procedure 9
9.1 Determination of original cross-sectional area (So) 9
9.2 Marking of the original gauge length (Lo) 9
9.3 Determination of percentage elongation after fracture (A) 9
9.4 Determination of the 0,2 % proof-strength, plastic extension (Rp0,2) 9
9.5 Discontinuous yielding strength (Ri) 10
9.6 Tensile strength (Rm) 10
9.7 Reduction of area (Z) 10

10 Test report 10

11 Measurement uncertainty 10

Annex A (informative) Examples of test pieces for tensile testing in liquid helium 11

Bibliography 13