ISO 7432:2021-04 (E)

Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test methods to prove the design of locked socket-and-spigot joints, including double-socket joints, with elastomeric seals

Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Principle ... **2**

5 Apparatus ... **3**
5.1 End-sealing devices ... 3
5.2 Supports ... 3
5.3 Source of hydrostatic pressure ... 3
5.4 Pressure gauges ... 3
5.5 Vacuum pump ... 3
5.6 Means of applying and measuring the required deformation and bending forces ... 3

6 Test pieces ... **4**
6.1 General ... 4
6.2 Test arrangement for tests detailed in 9.2 and 9.6 ... 4
6.3 Test arrangement for tests detailed in 9.3 and 9.4 ... 4
6.4 Test arrangement for tests detailed in 9.5 ... 5
6.5 Number of test pieces ... 7

7 Conditioning ... **7**

8 Test temperature ... **7**

9 Procedure ... **7**
9.1 General ... 7
9.2 Negative pressure ... 8
9.3 Deformation with internal pressure and end thrust ... 9
9.4 Deformation with cyclic pressure and end thrust ... 9
9.5 Bending with cyclic pressure and end thrust ... 9
9.5.1 Introductory notes ... 9
9.5.2 Method A ... 10
9.5.3 Method B ... 10
9.6 Internal pressure and end thrust ... 11

10 Test report ... **11**

Annex A (normative) **Calculation of the additional force, F_A, and limiting deflection, Δ, used in 9.5, Method A** ... **13**

Annex B (normative) **Calculation of the bending load, F_B, used in the bending test in 9.5, Method B** ... **14**