ISO 22476-4:2021-09 (E)

Geotechnical investigation and testing - Field testing - Part 4: Prebored pressuremeter test by Ménard procedure

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms, definitions and symbols **1**
3.1 Terms and definitions 1
3.2 Symbols 3

4 Equipment **6**
4.1 General description 6
4.2 Pressuremeter probe 6
4.2.1 General 6
4.2.2 Probe with flexible cover 8
4.2.3 Probe with flexible cover and an additional more rigid protection 8
4.2.4 Probe with flexible cover and slotted tube 9
4.3 Connecting lines and injected fluid 10
4.4 Pressure and volume control unit 11
4.4.1 General 11
4.4.2 Measurement and control 11
4.4.3 Data logger 12

5 Test procedure **12**
5.1 Assembling the parts 12
5.2 Calibration and corrections 13
5.3 Pressuremeter test pocket and probe placing 13
5.4 Preparation for testing 13
5.5 Establishing the loading programme 14
5.6 Establishing the pressure of the guard cells for tri-cell probes 15
5.7 Expansion 15
5.7.1 General 15
5.7.2 Readings and recordings 15
5.7.3 End of test 16
5.8 Back-filling of the pockets 16
5.9 Safety requirements 16

6 Test results **16**
6.1 Data sheet and field print-out or display 16
6.1.1 Data sheet for type A control unit 16
6.1.2 Site print-out for type B and C control units 17
6.1.3 Raw pressuremeter curve 17
6.2 Corrected pressuremeter curve 17
6.3 Calculated results 18

7 Reporting **19**
7.1 General 19
7.2 Field report 19
7.3 Test report 19
7.3.1 General 19
7.3.2 Ménard pressuremeter test report 19
7.3.3 Pressuremeter tests log 20

Annex A (normative) **Geometrical features of pressuremeter probes** **22**
Annex B (normative) **Calibration and corrections** **24**
Annex C (normative) **Placing the pressuremeter probe in the ground** **33**
Annex D (normative) **Obtaining pressuremeter parameters** **41**
Annex E (normative) **Uncertainties** **51**
Annex F (informative) **Pressuremeter test records** **53**
Bibliography **60**