

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