

Geotechnical investigation and testing - Identification, description and classification of rock

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Identification and description of rocks	3
4.1 General	3
4.2 Rock identification	3
4.3 Geological formation and age	4
5 Rock material description	4
5.1 Colour	4
5.2 Grain size	5
5.3 Unconfined compressive strength	5
5.4 Weathering and alteration effects	6
5.5 Carbonate content	7
5.6 Degradation of rock material	7
6 Rock mass description	7
6.1 General	7
6.2 Rock types	8
6.3 Structure and bedding	8
6.4 Discontinuities	8
6.4.1 General	8
6.4.2 Measurement of discontinuity orientation	9
6.4.3 Discontinuity spacing	10
6.4.4 Rock block shapes in three dimensions	10
6.4.5 Persistence of discontinuities	11
6.4.6 Roughness	11
6.4.7 Aperture	12
6.4.8 Infilling	13
6.4.9 Seepage	13
6.4.10 Joint sets	13
6.5 Weathering of the rock mass	13
7 Fracture indices in cores	14
8 Rock mass classification	15
9 Reporting	16
Annex A (informative) Aid to identification of rocks on the basis of geological features for engineering purposes	17
Annex B (informative) Classification of weathering of rocks (material and mass)	18
Annex C (informative) Description of discontinuities in three dimensions	20
Bibliography	21