ISO/TR 16475:2011-08 (E)

Guidelines for the repair of water-leakage cracks in concrete structures

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 2

3 Terms and definitions 2

4 Conditions of water-leakage cracks 3
4.1 Types of water-leakage cracks 3
4.2 Environmental conditions of water-leakage cracks 3

5 Performance requirements for repair materials 5
5.1 Performance requirements for chemical conditions 5
5.2 Performance requirements for physical (mechanical) conditions 5

6 Grout materials for repair 6
6.1 Acrylic grouts (water-based acrylic gel grout) 6
6.2 Cementitious grouts (water-based mixture of cement grout) 7
6.3 Hydrophilic epoxy resin grout 7
6.4 Polyurethane grouts 8
6.5 Synthetic rubber polymerised gel grout 8
6.6 Other material 8

7 Procedures applied to select the appropriate repair materials 8
7.1 Selection process of repair materials (grouts) 8
7.2 Test for performance requirements 9

8 Execution of different types of repair methods 11
8.1 Grouting injection methods 11
8.2 Injection method for reforming a waterproofing layer 13

9 Performance assessments of repaired structures 13
9.1 Inspection of repairs 13
9.2 Evaluation of repairs 14

10 Data collection (record keeping) 14

Bibliography 15