

ISO 9211-4:2022-03 (E)

Optics and photonics - Optical coatings - Part 4: Specific test methods: abrasion, adhesion and resistance to water

Contents	Page
Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Preparation prior to testing	1
5 Abrasion tests: cheesecloth/eraser test (conditioning method 01)	2
5.1 General.....	2
5.2 Test conditions.....	2
5.2.1 General.....	2
5.2.2 Moderate abrasion test.....	2
5.2.3 Severe abrasion test.....	2
5.3 Degree of severity: abrasion – cheesecloth/eraser test (conditioning method 01).....	2
5.4 Recovery.....	3
5.5 Evaluation.....	3
6 Adhesion test: tape test (conditioning method 02)	3
6.1 General.....	3
6.2 Test conditions.....	3
6.3 Degree of severity: adhesion – tape test (conditioning method 02).....	3
6.4 Recovery.....	4
6.5 Evaluation.....	4
7 Adhesion test: crosshatch test (conditioning method 03)	4
7.1 General.....	4
7.2 Test conditions.....	4
7.3 Degree of severity.....	4
7.4 Conditioning.....	4
7.5 Recovery.....	5
7.6 Evaluation.....	5
8 Resistance to water: exposure to water (conditioning method 04)	5
8.1 General.....	5
8.2 Test conditions.....	5
8.3 Degree of severity: resistance to water – exposure to water (conditioning method 04).....	6
8.4 Recovery.....	6
8.5 Evaluation.....	6
9 Adhesion test: pull-off test (conditioning method 05)	7
9.1 General.....	7
9.2 Test conditions.....	7
9.3 Degree of severity: adhesion – pull-of test (conditioning method 05).....	8
9.4 Evaluation.....	8
10 Environmental test code	8
Annex A (normative) Materials for abrasion testing of optical coatings	9
Annex B (informative) Cheesecloth pad, pad cover and fixture preparation for moderate abrasion testing of optical coatings	12
Annex C (normative) Visual examination of optical coatings	14
Bibliography	15