ISO 14457:2012-09 (E)

Dentistry - Handpieces and motors

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Classificationofhandpieces 4

5 Requirements and performance 4
5.1 General 4
5.2 Materials 4
5.3 Drop test 4
5.4 Noise level 4
5.5 Surfaces 4
5.6 Power supply 5
5.7 Air and water pressure 6
5.8 Temperature 6
5.9 Vibrations 6
5.10 Resistance to reprocessing 6
5.11 Leakage and/or ingress of water 6
5.12 Electromagnetic compatibility 6
5.13 Operating controls 6
5.14 Usability 7
5.15 Connection and supply 7
5.16 Chucksystemforshanks 9
5.17 Test mandrel 9
5.18 Speed 11
5.19 Eccentricity 11
5.20 Torque 11
5.21 Dimensionsofheadandnose 11

6 Sampling 12

7 Testing 12
7.1 General test conditions 12
7.2 Visual inspection 13
7.3 Power supply -- Electrical 13
7.4 Power supply -- Air 13
7.5 Spray air supply 13
7.6 Spray water supply 13
7.7 Air and water pressure 14
7.8 Motor cooling air 14
7.9 Connectorforhandpieceattachmentandforair-poweredhandpiece 14
7.10 Connection and supply 14
7.11 Test mandrels 14
7.12 Chuckforshanks 15
7.13 Dimensions(ofheadandnose) 15
7.14 Eccentricity 16

7.15 Torque 16
7.16 Noise level 16
7.17 Speed 17
7.18 Temperatureriseofhousing 17
7.19 Temperature, excessive 17
7.20 Resistance to reprocessing 17

8 Instructions for use, maintenance and service 17

9 Technicaldescription 18

10 Marking 18
10.1 General 18
10.2 Handpieces 18
10.3 Motors 18

11 Labelling 19

12 Packaging 19

Annex A (informative) Handpiece categories 20

Bibliography 22