DIN EN 15200:2007-08 (E)

Sanitary appliances - Multifunction shower cabinets

Contents

Page

Foreword 5

1 Scope 6

2 Normative references 6

3 Terms and Definitions 7

4 Installation and maintenance 7
4.1 General 7
4.2 Protection of drinking water quality 7
4.3 Maintenance 8

5 Requirements 8
5.1 Electrical and safety 8
5.2 Dimensional deviations 8
5.3 Base 8
5.3.1 General 8
5.3.2 Water Drainage 8
5.3.3 Connecting dimensions 8
5.3.4 Resistance to temperature changes 8
5.3.5 Mechanical resistance 9
5.4 Walls 9
5.5 Common requirements applying to base, walls and roof 9
5.5.1 Chemical resistance 9
5.5.2 Water absorption 10
5.5.3 Steam resistance 10
5.5.4 Resistance to wet and dry cycling 10
5.5.5 Colour fastness 10
5.5.6 Resistance to scratching 10
5.6 Corrosion resistance 10
5.7 Construction and design 11
5.7.1 Appearance 11
5.7.2 Waste outlet drainage 11
5.7.3 Steam outlets 11
5.7.4 Pumps 11
5.7.5 Mirrors 11
5.7.6 Components 11
5.8 Whirlpool 12
5.9 Stability 12
5.10 Endurance of doors 12
5.11 Seats 12
5.12 Grab handles 12
5.13 Watertightness 12
5.13.1 Cabinet watertightness 12
5.13.2 Piping watertightness 13
5.14 Steam system 13
5.14.1 Temperature increase 13
5.14.2 Temperature distribution 13

6 Test methods 13
6.1 Water Drainage 13

6.2 Resistance to temperature changes 13
6.2.1 Test apparatus: 13
6.2.2 Procedure (the base is submitted successively to test A and test B) 14
6.3 Deflections under load 16
6.3.1 General 16
6.3.2 Test apparatus 16
6.3.3 Preloading 16
6.3.4 Procedure 16
6.4 Resistance to impact 21
6.4.1 Test apparatus 21
6.4.2 Procedure 21
6.5 Mechanical resistance of base surface 22
6.5.1 Test apparatus 22
6.5.2 Test specimen 23
6.5.3 Procedure 23
6.6 Chemical resistance 24
6.6.1 Test apparatus and chemicals 24
6.6.2 Test specimen 25
6.6.3 Procedure 25
6.7 Water absorption 26
6.7.1 Principle 26
6.7.2 Test apparatus 26
6.7.3 Test specimen 28
6.7.4 Procedure 28
6.8 Steam resistance 29
6.9 Resistance to wet and dry cycling 29
6.9.1 Test apparatus 29
6.9.2 Test specimens 30
6.9.3 Procedure 30
6.10 Colour fastness to hot water 30
6.10.1 Apparatus 30
6.10.2 Test specimens 30
6.10.3 Procedure 30
6.11 Resistance to scratching 31
6.11.1 Principle 31
6.11.2 Test apparatus 31
6.11.3 Test specimen 31
6.11.4 Procedure 31
6.11.5 Expression of results 32
6.12 Waste outlet drainage 32
6.12.1 Test apparatus 32
6.12.2 Procedure 32
6.13 Stability 32
6.13.1 Test apparatus 32
6.13.2 Procedure 33
6.14 Seats 34
6.14.1 Test apparatus 34
6.14.2 Procedure 34
6.15 Grab handles 34
6.15.1 Test apparatus 34
6.15.2 Procedure 34
6.16 Unit watertightness test 35
6.16.1 Principle 35
6.16.2 Test apparatus 35
6.16.3 Procedure 35
6.17 Piping leaktightness 36
6.17.1 Test apparatus 36
6.17.2 Procedure 36
6.18 Steam heating system 36
6.18.1 Test apparatus 36
6.18.2 Procedure 36

7 Marking 37

8 Manufacturer's instructions 37

Table 1 -- Permitted deviations 8

Table 2 -- Permitted deflections of bath type base 9

Table 3 -- Permitted deflections of shower tray type base 9

Table 4 -- Chemicals 24

Table 5 -- Energy for stability test 34

Figure 1 -- Position of the gauge 15

Figure 2 -- Deflection test A 17

Figure 3 -- Deflection test B 18

Figure 4 -- Deflection test C 19

Figure 5 -- Deflection test A 20

Figure 6 -- Deflection test B 21

Figure 7 -- Scratching apparatus 23

Figure 8 -- Cleaning device 25

Figure 9 -- Water absorption 26

Figure 10 -- Cell 27

Figure 11 -- Clamp 28

Figure 12 -- Stability test arrangement 33

Figure 13 - Direction of forces for grab handle test 35