DIN EN 13108-20:2016-12 (E)

Bituminous mixtures - Material specifications - Part 20: Type Testing

Contents

Page

European foreword ... 4

Introduction ... 6

1 Scope ... 7

2 Normative references ... 7

3 Terms and definitions ... 10

4 Requirements for Type Testing ... 10
4.1 General ... 10
4.2 Validity ... 11
4.2.1 Period of validity ... 11
4.2.2 Changes in aggregate ... 11
4.2.3 Change in bitumen ... 11
4.2.4 Change in Reclaimed Asphalt ... 12
4.2.5 Change in additive ... 12

5 Constituent materials ... 12

6 Bituminous Mixtures ... 12
6.1 General ... 12
6.2 Application ... 12
6.3 Sampling and testing ... 13
6.4 Composition ... 13
6.5 Specimen preparation ... 13
6.5.1 General ... 13
6.5.2 Laboratory validation ... 13
6.5.3 Production validation ... 13

7 Type Test Report ... 14
7.1 General ... 14
7.2 Constituents ... 14
7.3 Mix formulation ... 14
7.4 Temperatures ... 15
7.5 Test results ... 15

Annex A (normative) Properties and test methods for constituent materials ... 16

Annex B (normative) Summary of properties and test methods for bituminous mixtures ... 17
B.1 Asphalt Concrete (EN 13108-1) ... 17
B.2 Asphalt Concrete for Very Thin Layers, BBTM (EN 13108-2) ... 18
B.3 Soft Asphalt (EN 13108-3) ... 19
B.4 Hot Rolled Asphalt (EN 13108-4) ... 19
B.5 Stone Mastic Asphalt (EN 13108-5) ... 20
B.6 Mastic asphalt (EN 13108-6) ... 21
B.7 Porous Asphalt (EN 13108-7) ... 21
B.8 Asphalt for Ultra-Thin Layers, AUTL (EN 13108-9) ... 22

Annex C (normative) Methods of specimen preparation ... 23
C.1 General ... 23

C.2 Compaction energy 23
C.3 Reference density 23
C.4 Compaction degree 24
C.5 Void content 24

Annex D (normative) Test procedures and conditions 26
D.1 Test procedures and conditions 26
D.2 Bulk density, maximum density, void content, voids filled with bitumen and voids in mineral aggregate 26
D.3 Water sensitivity 26
D.4 Resistance to abrasion by studded tyres 26
D.5 Bitumen aggregate affinity for application of porous asphalt on airfields 26
D.6 Resistance to permanent deformation by wheel-tracking test 27
D.7 Resistance to permanent deformation by tri-axial compression test 27
D.8 Stiffness 28
D.9 Fatigue 29
D.10 Marshall test for application on airfields 29
D.11 Resistance to fuel for application on airfields 29
D.12 Resistance to de-icing fluid for application on airfields 29
D.13 Binder drainage 29
D.14 Indentation and resistance to permanent deformation of mastic asphalt 29
D.15 Permeability 30
D.16 Particle loss of porous asphalt 30
D.17 Mixture SATS Durability index 30
D.18 Low temperature properties 30
D.19 Fracture toughness (potential for crack propagation) 30
D.20 Friction after polishing (FAP) 31

Annex E (informative) Special requirements for airfields 32