**SCOPE 316 ЛИ**

**TINFI LTD**

**CONSTRUCTION LABORATORY TINFI**

**Management address:** 8800 Sliven, 18 Radetski Str.

**Laboratory address:** 8800 Sliven, 1 Samuilovsko Shose Str.

**To perform testing of:**

| **Type of the scope:** *flexible* | | | |
| --- | --- | --- | --- |
| **№** | **Tested products** | **Type of test / characteristic** | **Testing methods**  **(standard/ validated method)** |
| 1 | 2 | 3 | 4 |
| 1. | Bituminous mixtures | 1.1. Soluble binder content | БДС EN 12697-1  Annex B, cl. B.2.1 |
| 1.2. Particle size distribution | EN 12697-2+А1 |
| 1.3. Maximum density | БДС EN 12697-5, Procedure A |
| 1.4. Bulk density | БДС EN 12697-6, Procedure A, B |
| 1.5. Air voids content | БДС EN 12697-8 |
| 1.6. Stability | БДС EN 12697-34 |
| 1.7. Flow | БДС EN 12697-34 |
| 2. | Bituminous layers | 2.1. Bulk density of  bituminous specimen (core) | БДС EN 12697-6  Procedure А |
| 2.2. Conventional reference density | БДС EN 12697-9\* |
| 2.3. Compaction degree | БДС EN 12697-9\* |
| 2.4. Thickness of bituminous layer | БДС EN 12697-36  cl. 6.1 |
| 3. | Bitumens | 3.1. Penetration | БДС EN 1426 |
| 3.2. Softening point | БДС EN 1427 |
| 4. | Aggregates | 4.1. Particle size distribution | БДС EN 933-1 |
| 4.2. Percentage of fines fraction passing the 0.063 mm sieve | БДС EN 933-1 |
| 4.3. Flakiness index | БДС EN 933-3 |
| 4.4. Shape index | БДС EN 933-4 |
| 4.5. Percentage of:  - totally crushed particles  - rounded particles  - totally rounded particles | БДС EN 933-5 |
| 4.6. Sand equivalent value | БДС EN 933-8+А1 |
| 4.7. Methylene blue value | БДС EN 933-9 |
| 4.8. Resistance to fragmentation  - Los Angeles coefficient | БДС EN 1097-2 |
| 4.9. Water content | БДС EN 1097-5 |
| 4.10. Particle density:  - apparent particle density  - oven-dried particle density  - saturated and surface-dried particle density  - pre-dried particle density  - particle density of coarse aggregate, saturated to constant mass | БДС EN 1097-6, cl. 7, cl. 8, cl. 9,  Annex А – cl. А.3, cl. А.4,  Annex В |
| 4.11. Water absorption | БДС EN 1097-6, cl. 7, cl. 8, cl. 9,  Annex В |
| 4.12. Magnesium sulfate value | БДС EN 1367-2  БДС EN 13450, Annex G |
| 4.13. Content of humus | БДС EN 1744-1+A1 cl. 15.1 |
| 4.14. Maximum density of skeleton at optimum water content | БДС EN 13286-2  cl. 7.1, cl. 7.2, cl. 7.4, cl. 7.5 |
| 4.15. California Bearing Ratio | БДС EN 13286-47 |
| 4.16. Liquid limit | БДС EN ISO 17892-12, cl. 5.4  Ordinance № РД-02-20-2,  SG 79/2018, Annex № 15 |
| 4.17. Plastic limit | БДС EN ISO 17892-12  Ordinance № РД-02-20-2,  SG 79/2018, Annex № 16 |
| 4.18. Plasticity index | БДС EN ISO 17892-12  Ordinance № РД-02-20-2,  SG 79/2018, Annex № 16 |
| 4.19. Elastic module | БДС 15130 |
| 4.20. Deformation module | БДС 15130 |
| 4.21. Deformation modules ratio Е2:Е1 | БДС 15130 |
| 5. | Fillers | 5.1. Particle size distribution | БДС EN 933-1 |
| 5.2. Methylene blue value | БДС EN 933-9 |
| 5.3. Water content | БДС EN 1097-5 |
| 6. | Construction soils | 6.1. Water content | БДС EN ISO 17892-1 |
| 6.2. Particle size distribution | БДС EN ISO 17892-4, cl. 5.2 |
| 6.3. Content of humus | БДС EN 1744-1+A1, cl. 15.1 |
| 6.4. Maximum density of skeleton at optimum water content | БДС EN 13286-2  cl. 7.1, cl. 7.2, cl. 7.4, cl. 7.5 |
| 6.5. California Bearing Ratio | БДС EN 13286-47 |
| 6.6. Liquid limit | БДС EN ISO 17892-12, cl. 5.4  Ordinance № РД-02-20-2,  SG 79/2018, Annex № 15 |
| 6.7. Plastic limit | БДС EN ISO 17892-12  Ordinance № РД-02-20-2,  SG 79/2018, Annex № 16 |
| 6.8. Plasticity index | БДС EN ISO 17892-12  Ordinance № РД-02-20-2,  SG 79/2018, Annex № 16 |
| 6.9. Elastic module | БДС 15130 |
| 6.10. Deformation module | БДС 15130 |
| 6.11. Deformation modules ratio Е2:Е1 | БДС 15130 |

*\*Repealed but not replaced standard with regard to the testing method.*

***Flexible Scope:*** *Implementing a new version of standards/documents or standards/ documents replacing them is allowed. An updated list of standards/documents and their dated versions is provided by laboratory.*

**References:**

Ordinance № РД-02-20-2 Ordinance № РД-02-20-2 of 28.08.2018 for road design, SG № 79/25.09.2018, Amd. SG № 90/30.10.2018, Amd. SG 38/24.04.2020

- Annex № 15 to Art. 160, item 3;

- Annex № 16 to Art. 160, item 3.