**SCOPE 139 ЛИ**

**of PATISHTA AD, SHUMEN**

**CONSTRUCTION LABORATORY MATNITSA**

**Management address:** 9700, Shumen, 3 Palamara Str, Office 2

**Laboratory address:** 9700, Shumen, Matnitsa Residential Quarter, Asphalt Base

**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. | Asphalt mixtures | 1.1. Volume density of asphalt test bodies | БДС EN 12697-6 Procedure B |
| 1.2. Maximum Density | БДС EN 12697-5, Procedure A |
| 1.3. Air pores in asphalt test bodies (residual porosity) Va | БДС EN 12697-8 cl. 4 |
| 1.4. Marshall Stability | БДС EN 12697-34 |
| 1.5. Marshall plastic flow | БДС EN 12697-34 |
| 1.6. Content of soluble binder | БДС EN 12697-1, Appendix B, cl. B 2.1 |
| 1.7. Particle size distribution | БДС EN 12697-2+A1 |
| 1.8. Degree of sealing | БДС EN 12697-9\* |
| 1.9. Thickness of asphalt layer | БДС EN 12697-36, cl.6.1. |
| 1.10. Determination of the dimensions of an asphalt test body | БДС EN 12697-29 |
| 2. | Bitumen and bituminous binders | 2.1 Penetration | БДС EN 1426 |
| 2.2 Elastic Recovery | БДС EN 13398 |
| 2.3 Ring-ball softening temperature | БДС EN 1427 |
| 3. | Construction soils | 3.1 Volumetric density in place with "replacement sand" | AASHTO T191 |
| 3.2 Elastic and deformation modulus by load with round plate:   * elastic modulus * deflection modules * ratio of deflection modules E2/E1 | БДС 15130 |
| 3.3 Maximum skeleton volumetric density and optimum water content. Proctor method. | БДС 17146 |
| 3.4 Maximum volumetric density and optimum water content. Proctor test. | БДС EN 13286-2 |
| 3.5 Leakage and drainage limit, plasticity index | AASHTO T89  AASHTO T90 |
| 3.6 Carrying capacity index CBR | БДС EN 13286-47 |
| 3.7 Degree of seal | AASHTO T191 |
| 4. | Rock materials for unbound and hydraulically bound mixtures for use in civil engineering and road construction (1), Rock materials for bituminous mixtures and pavements for roads, airstrips and other transport areas (2),  Mineral flour (3) | 4.1 Grain metric composition Sifting method. | БДС EN 933-1 (1-3) |
| 4.2 Fine fraction content | БДС EN 933-1 (1,2) |
| 4.3 Form factor. | БДС EN 933-4 (1,2) |
| 4.4 Magnesium sulphate value (mass loss in accelerated magnesium sulphate test) | БДС EN 1367-2 (1, 2) |
| 4.5 Water content. Humidity. | БДС EN 1097-5 (1,2)  БДС 2880 (3) |
| 4.6 Multigrain ratio | БДС EN 13242+A1/NA  cl. NA. 4.3.4 (1) |
| 4.7 Sand equivalent | БДС EN 933-8+A1 (1,2) |
| 4.8 Relative particle density and water absorption | БДС EN 1097-6 (1,2) |
| 4.9 Volume bulk density | БДС EN 1097-3 (1,2) |
| 4.10 Resistance to fractionation (Los Angeles method) | БДС EN 1097-2 (1,2) |

**To perform sampling of:**

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| **Type of the scope:** *flexible* | | |
| **№** | **Product** | **Sampling methods**  **(standard / validated)** |
| 1 | 2 | 3 |
| 1. | Fine and coarse rock materials | БДС EN 932-1 cl. 8.2 and cl. 8.8 |
| 2. | Asphalt mix for road surfaces | БДС EN 12697-27 cl. 4.1 |
| 3. | Finished asphalt layer | БДС EN 12697-27 cl. 4.7 |
| 4. | Bitumen | БДС EN 58, cl. 8.1 and cl. 8.2 |
| 5. | Construction soils. Unbound and hydraulically bound mixtures | БДС 17146  БДС EN 13286-1 |

*\*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.*