**SCOPE 85 ЛИ**

**Sofia, 25.10.2024**

INTERSTATE LTD

ROAD LABORATORY

**Management address:**

4004 Plovdiv, South District, 90 Nikola Vaptsarov Blvd, Floor 2, Apt. 33

**Laboratory address:**

4120 Katunitsa, Plovdiv Region, Letishteto Area, Chaya Asphalt Base,

**To perform testing of**:

| **Type of the scope**: *flexible* | | | |
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| **№** | **Tested products** | **Type of test / characteristic** | **Testing methods**  **(standard/ validated method)** |
| 1 | 2 | 3 | 4 |
| 1. | Aggregates:  a) for unbound and hydraulically bound materials for use in civil engineering work and road construction  b) for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas, including fine fillers (Mineral flour)  c) Supplementary materials and fillers | 1.1. Particle size distribution (1.a; 1.b; 1.c) | БДС EN 933-1 |
| 1.2. Density in free bulk (1.a; 1.b; 1.c) | БДС EN 1097-3 |
| 1.3. Percentage of gaps  (1.a; 1.b; 1.c) | БДС EN 1097-3 |
| 1.4. Particle density  (1.a; 1.b; 1.c)  - apparent particle density (Pa)  - particle density in dry condition (Prd)  - Saturated and surface-dried particle density (Pssd)  - pre-dried particle density (Pp) | БДС EN 1097-6 |
| 1.5. Water absorption  (1.a; 1.b; 1.c) | БДС EN 1097-6 |
| 1.6. Water content  (1.a; 1.b; 1.c) | БДС EN 1097-5 |
| 1.7. Percentage of fine fraction (1.a; 1.b; 1.c) | БДС EN 933-1 |
| 1.8. Shape index  (1.a; 1.b; 1.c) | БДС EN 933-4 |
| 1.9. Magnesium-sulphate value, (MS)  (1.a; 1.b; 1.c) | БДС EN 1367-2 |
| 1.10. Liquid limit  (1.a; 1.b; 1.c) | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 15\* |
| 1.11. Plastic limit  (1.a; 1.b; 1.c) | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 16\* |
| 1.12. Plasticity index  (1.a; 1.b; 1.c) | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 16\* |
| 1.13. Percentage of particle with crushed surfaces (1.a; 1.b; 1.c)  - Percentage of the totally crushed particles (Ctc)  - Percentage of crushed particles (Cрc)  - Percentage of the totally rounded particles (Ctr) | БДС EN 933-5 |
| 1.14. Maximum bulk density of the framework / optimum water content  (1.a) | БДС 17146, cl. 3.3.1 and  cl. 3.3.2  БДС EN 13286-2, cl. 7.1,  cl. 7.2, cl. 7.4 and cl. 7.5 |
| 1.15. California bearing ratio (1.a) (CBR) | БДС EN 13286-47 |
| 1.16. Elastic modulus upon loading with a circular slab (1.a) | БДС 15130 |
| 1.17. Deformation module upon loading with a circular slab (1.a) | БДС 15130 |
| 1.18. E2/E1 deformation modules ratio upon loading with a circular slab (1.a) | БДС 15130 |
| 1.19. Bulk density under the “Replacement sand“ method (1.a) | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 18\* |
| 1.20. Degree of compaction (1.a) | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 18\* |
| 1.21. Sand equivalent  (1.a; 1.b; 1.c) | БДС EN 933-8 |
| 1.22. Affinity whit bitumen (1.a; 1.b; 1.c) | БДС 11685 |
| 1.23. Degree of bitumen coverage (affinity between aggregate and bitumen) - (1.b) | БДС EN 12697-11,  Hot water desorption Method |
| 2. | Construction soils | 2.1. Water content | БДС EN/ISO 17892-1 |
| 2.2. Particle size distribution | БДС EN 933-1 |
| 2.3. Bulk density /  Density in dry condition | БДС EN/ISO 17892-2:2015,  Cutting ring Method |
| 2.4. Density of Soil In-Place by the Sand-Code Method | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 18\* |
| 2.5. Degree of compaction | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 18\* |
| 2.6. Liquid limit | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 15\* |
| 2.7. Plastic limit | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 16\* |
| 2.8. Plasticity index | Ministry of Regional Development and Public Works; Ordinance № РД-02-20-2, SG № 79/2018, Appendix № 16\* |
| 2.9. Maximum bulk density of the framework / optimum water content (1.a) | БДС 17146,  cl. 3.3.1 and cl. 3.3.2  БДС EN 13286-2, cl. 7.1,  cl. 7.2, cl. 7.4 and cl. 7.5 |
| 2.10. California bearing ratio | БДС EN 13286-47 |
| 2.11. Elastic module upon loading with a circular slab | БДС 15130 |
| 2.12. Deformation module upon loading with a circular slab | БДС 15130 |
| 2.13. E2/E1 deformation modules ratio upon loading with a circular slab | БДС 15130 |
| 3. | Bitumen  a) Oil bitumen  b) Polymer modified bitumen (PmB) | 3.1. Penetration | БДС EN 1426 |
| 3.2. Softening point | БДС EN 1427 |
| 4. | Bituminous mixtures | 4.1. Bulk density | БДС EN 12697-6 |
| 4.2. Maximum density | БДС EN 12697-5 |
| 4.3. Particle-size distribution (PSD) | БДС EN 12697-2+A1 |
| 4.4. Soluble binder content | БДС EN 12697-1 |
| 4.5. Resistance | БДС EN 12697-34 |
| 4.6. Conditional plasticity | БДС EN 12697-34 |
| 4.7. Marshall Coefficient | БДС EN 12697-34 |
| 4.8. Indirect tensile strength - ITS | БДС EN 12697-23 |
| 4.9. Indirect tensile strength ratio ITSR (Water sensitivity) | БДС EN 12697-12  Procedure A |
| 4.10. Air voids content | БДС EN 12697-8 |
| 5. | Laid and compact asphalt layers | 5.1. Bulk density | БДС EN 12697-6 |
| 5.2. Degree of compaction | БДС EN 12697-9 \* |
| 5.3. Height of bituminous specimens | БДС EN 12697-29 |

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

**To perform sampling of:**

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| **Type of the scope:** *flexible* | | |
| **№** | **Product** | **Sampling methods**  **(standard/validated method)** |
| 1 | 2 | 3 |
| 1. | Laid and compact asphalt layers | БДС EN 12697–27, cl. 4.7 |

***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.*

**Reference:**

1) Appendix № 15 to Art. 160, item 3 of Ordinance № РД-02-20-2/28.08.2018 on road design by the Ministry of Regional Development and Public Works, SG № 79/25.09.2018;

2) Appendix № 16 to Art. 160, item 3 of Ordinance № РД-02-20-2/28.08.2018 on road design by the Ministry of Regional Development and Public Works, SG № 79/25.09.2018;

3) Appendix № 18 to Art. 168, para 1 of Ordinance № РД-02-20-2/28.08.2018 on road design by the Ministry of Regional Development and Public Works, SG № 79/25.09.2018;