**SCOPE 28 ЛИ**

**Sofia, 13.09.2024**

**ROADS AD**

**ROAD LABORATORY**

**Management address:** 4400 Pazardzhik, 29 Sinitevska Str.

**Laboratory address:** 4474 Semchinovo, Аsphalt base, Septemvri Municipality,

Pazardzhik Region

**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. | Aggregate/rock materials (for bituminous mixtures, pavements, runways, and other transport areas; unbound and hydraulically bound mixtures for use in construction equipment and road construction) | 1.1. Granulometric composition | БДС EN 933-1 |
| 1.2. Shape coefficient | БДС EN 933-4 |
| 1.3. Weathering resistance with magnesium sulphate (magnesium sulphate value) | БДС EN 1367-2 |
| 1.4. Grain density  - bulk density  - grain density in dry condition  - grain density in saturated surface dry condition | БДС EN 1097-6, cl. 8; cl. 9; |
| 1.5. Water absorption | БДС EN 1097-6, cl. 8; cl. 9; |
| 1.6. Sand equivalent | БДС EN 933-8+А1 |
| 2. | Mineral flour and fillers for asphalt mixtures | 2.1. Granulometric composition | БДС EN 933-1 |
| 2.2. Particle density | БДС EN 1097-7 |
| 3. | Bitumen petroleum viscous | 3.1. Penetration | БДС EN 1426 |
| 3.2. Softening point by the ring and ball method | БДС EN 1427 |
| 4. | Hot asphalt mixtures and cores cut from the road, trimmed by sawing. | 4.1. Sizes of asphalt test piece:  - diameter;  - height;  - width;  - depth; | БДС EN 12697-29 |
| 4.2. Volume density | БДС EN 12697-6 (Procedure В) |
| 4.3. Contents of air pores | БДС EN 12697-8, cl. 4 |
| 4.4. Stability | БДС EN 12697-34 |
| 4.5. Probable plasticity | БДС EN 12697-34 |
| 4.6. Marshall coefficient | БДС EN 12697-34 |
| 4.7. Maximum density | БДС EN 12697-5 (Procedure А) |
| 4.8. Soluble binder content | БДС EN 12697-1, Annex B |
| 4.9. Distribution of particle size | БДС EN 12697-2+A1 |
| 4.10. Thickness of a bituminous pavement | БДС EN 12697-36, cl. 4.1 |
| 4.11. Degree of compactability | БДС EN 12697-9 |
| 5. | Construction soils and road structures | 5.1. Degree of compactability | MRDPW Ordinance №  РД-02-20-2, SG № 79/2018,  Appendix № 18 |
| 5.2. Maximum volume density of frame by the Proctor method | БДС EN 13286-2 |
| 5.3. Optimum water content by the Proctor method | БДС EN 13286-2 |
| 5.4. California bearing ratio CBR | БДС EN 13286-47 |
| 5.5. Linear inflation | БДС EN 13286-47 |
| 5.6. Liquid limit | MRDPW Ordinance №  РД-02-20-2, SG № 79/2018,  Appendix № 15 |
| 5.7. Drainage limit; plasticity index | MRDPW Ordinance №  РД-02-20-2, SG № 79/2018,  Appendix № 16 |
| 5.8. Volume density on site by sand replacement | MRDPW Ordinance №  РД-02-20-2, SG № 79/2018,  Appendix № 18 |
| 5.9. Determination of the elastic and the deformation modulus by means of a round plate load:  - elastic modulus (Ее)  - deformation modulus (E1), (Е2), Е3);  - ratio of deformation modulus (Е2/E1) | БДС 15130 |

**To perform sampling of:**

| **Type of the scope:** *flexible* | | |
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| **№** | **Product** | **Sampling method**  **(standardized/ validated)** |
| **1** | **2** | **3** |
| 1. | Aggregate/ rock materials (for bituminous mixtures, pavements, runways, and other transport areas; unbound and hydraulically bound mixtures for use in construction equipment and road construction) | БДС EN 932-1 |
| 2. | Hot asphalt mixtures and cores cut from the road, trimmed by sawing. | БДС EN 12697-27 cl. 4.1, cl. 4.1, cl. 4.3, cl. 4.4, cl. 4.7, |

**Referеnces:**

1. Annex № 15, Art. 168, para. 1 of Ordinance № РД-02-20-2/28.08.2018 for Road Design of the Ministry of Regional Development and Public Works (MRDPW), SG, № 79/2018.

2. Annex № 16, Art. 168, para. 1 of Ordinance № РД-02-20-2/28.08.2018 for Road Design of the Ministry of Regional Development and Public Works (MRDPW), SG, № 79/2018.

3. Annex № 18, Art. 168, para. 1 of Ordinance № РД-02-20-2/28.08.2018 for Road Design of the Ministry of Regional Development and Public Works (MRDPW), SG, № 79/2018.

***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.*