**SCOPE 77 ЛИ**

**Sofia, 30.08.2024**

**of PST GROUP JSC**

**TESTING LABORATORY**

**Management address:**

1517 Sofia, Poduyane, Sofia Municipality, 114 Besarabiya Str.

**Laboratory address:**

**Office 1:** 1517 Sofia, Poduyane, Sofia Municipality, 114 Besarabiya Str.

**Office 2:** Dermantsi, Lukovit Municipality, Lovech 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. | Rock materials (1)Construction soils (2) | 1.1. Grain-meter compounds | БДС EN 933-1 (1), (2) |
| 1.2. Contents of fine fraction | БДС EN 933-1 (1), (2) |
| 1.3. Sand equivalent | БДС EN 933-8+A1 (1) |
| 1.4. Water contents | БДС EN 1097-5 (1), (2) |
| 1.5. Grain density:- Density of dry grains, prd;- Density of grains of water -saturated surface-dry condition, pssd;- Apparent grain density, pa/Method with wire basket, picnometric method/. | БДС EN 1097-6 (1) |
| 1.6. Absobtion /Method with wire basket, picnometric method/. | БДС EN 1097-6 (1) |
| 1.7. Shape coefficient | БДС EN 933-4 (1) |
| 1.8. Flowing borderline | Appendix 15 to Ordinance № РД-02-20-2 on road design1 (2) |
| 1.9. Drawing limit. Plasticity indicator.  | Appendix 16 to Ordinance № РД-02-20-2 on road design2 (2) |
| 1.10. Proctor method: - Maximum volumetric skeleton density; - Optimal water contents. | БДС 17146 (1), (2) БДС EN 13286-2 (1), (2) |
| 1.11. Indicator of load-carrying ability CBR | БДС EN 13286-47 (1), (2) |
| 1.12. Elasticity module, deformation modules E1, E2, ratio of deformation modules E2:E1 | БДС 15130 (1), (2) |
| 1.13. Volumetric thickness on the spot via replacing sand and thickening | AASHTO T 191 (1), (2) Appendix 18 to Ordinance № РД-02-20-2 on road design3  (1), (2) |
| 2. | Bitumen | 2.1. Penetration at 25°C | БДС EN 1426 |
| 2.2. Softening temperature according to the method “ring – ball” | БДС EN 1427 |
| 2.3. Elastic recovery of modified bitumen | БДС EN 13398 |
| 3. | Asphalt mixtures (1) Asphalt pavements (2) | 3.1. Volumetric/ comparative density | БДС EN 12697-6 (1), (2)  |
| 3.2. Dimensions of asphalt trial bodies | БДС EN 12697-29 (1) |
| 3.3. Maximum density /Picnometric method/ | БДС EN 12697-5 (1) |
| 3.4. Contents of air pores: - within the asphalt trial bodies. | БДС EN 12697-8 (1) |
| 3.5. Marshal test: - sustainability/stability;- conditional plasticity/plastic flow. | БДС EN 12697-34 (1) |
| 3.6. Contents of soluble binding ingredient /Method with automated extractor/  | БДС EN 12697-1 (1)  |
| 3.7. Distribution of particles’ size | БДС EN 12697-2+A1 (1) |
| 3.8. Asphalt pavement thickness /Destructive measurement/ | БДС EN 12697-36 (2) |
| 3.9. Thickening degree | БДС EN 12697-9 (2) |
| 3.10. Pavement surface unevenness | БДС EN 13036-7 (2) |
| 4. | Concrete mixtures | 4.1. Subsidence | БДС EN 12350-2 |

**To perform sampling of:**

| **Type of the scope:** *flexible* |
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| **№**  | **Product**  | **Sampling method** **(standardized/ validated)** |
| **1** | **2** | **3** |
| 1 | Rock materials (1)Construction soils (2) | БДС EN 932-1, sampling from bundles (1), (2)БДС EN 13286-1, (2) |
| 2 | Asphalt mixtures (1)Asphalt pavements (2) | БДС EN 12697-27, sampling – load onto truck with materials (1)БДС EN 12697-27, sampling – laid and thickened materials via drill (2) |
| 3 | Concrete mixtures | БДС EN 12350-1 |

**Office 2** – Dermantsi, Lukovit Municipality, Lovech Region

**To perform testing of:**

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| **Type of the scope:** *flexible*  |
| **№** | **Tested products** | **Type of test / characteristic** | **Testing methods****(standard / validated method)** |
| **1** | **2** | **3** | **4** |
| 1. | Rock materials (1)Nonconnected and hydraulically connected mixtures (2) | 1.1. Grain-meter compounds | БДС EN 933-1 (1), (2) |
| 1.2. Contents of fine fraction | БДС EN 933-1 (1) |
| 1.3. Water contents | БДС EN 1097-5 (1), (2) |
| 1.4. Flat grains index | БДС EN 933-1 (1) |
| 1.5. Per cent of:- crushed grains;- fully crushed grains;- fully rounded grains. | БДС EN 933-5 (1) |
| 1.6. Proctor method: - Maximum volumetric skeleton density; - Optimal water contents. | БДС EN 13286-2 (1), (2) |
| 1.7. Pressure strength  | БДС EN 13286-41 (2) |
| 2. | Concrete  | 2.1. Subsidence | БДС EN 12390-7 (2) |
| 2.2. Pressure strength | БДС EN 12390-3 (2) |

**To perform sampling of:**

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| --- |
| **Type of the scope:** *flexible* |
| **№**  | **Product**  | **Sampling method** **(standardized/ validated)** |
| **1** | **2** | **3** |
| 1. | Rock materials (1)Construction soils (2) | БДС EN 932-1, sampling from bundles (1), (2)БДС EN 13286-1, (2) |
| 2. | Concrete mixtures | БДС EN 12350-1 |

***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.*

**Referеnce:**

1. Appendix № 15 to Art. 168, para. 1 of Ordinance № РД-02-20-2, SG 79/2018 – Method for defining the Flowing borderline;

2. Appendix № 16 to Art. 168, para. 1 of Ordinance № РД-02-20-2, SG 79/2018 – Method for defining the Flowing borderline and Plasticity indicator;

3. Appendix № 18 to Art. 168, para. 1 of Ordinance № РД-02-20-2, SG 79/2018 – Method for defining the volumetric thickness of construction soils on the spot via replacing sand