**SCOPE 126 ЛИ**

**Sofia, 29.03.2024**

**GBS INFRASTRUCTURE CONSTRUCTION AD**

**TESTING CONSTRUCTION LABORATORY**

**Management address:** 1619 Sofia, 3-5, Damyanitsa Str.

**L**aboratory **address:** 1532 Sofia, Kazichene, Pancharevo District, Vidnite Quarter

**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. | Bitumens and bituminous binders | Penetration | БДС EN 1426 |
| Softening point by the Ring and Ball method | БДС EN 1427 |
| 2. | Bituminous emulsions | Visible (perceptible) properties | БДС EN 1425 |
| Content of recovered binder | БДС EN 1431 |
| Viscosity/efflux time | БДС EN 12846-1 |
| Residue on sieving | БДС EN 1429 |
| Particle polarity | БДС EN 1430 |
| Mixing stability with cement | БДС EN 12848 |
| Reocovered binder  - Penetration  - Softening point by the Ring and Ball method | БДС EN 1426  БДС EN 1427 |
| - Storage stability by sieving | БДС EN 1429 |
| 3. | Aggregates | Particle size distribution | БДС EN 933-1 |
| Flakiness index | БДС EN 933-3 |
| Shape index | БДС EN 933-4 |
| Percentage of crushed particles | БДС EN 933-5 |
| Resistance to frost  - Direct freezing  - Magnesium sulfate test | БДС EN 1367-1  БДС EN 1367-2 |
| Sand equivalent | БДС EN 933-8+A1 |
| Particle density | БДС EN 1097-6, cl. 7, cl. 8, cl. 9 and Annex А and B |
| Water absorption | БДС EN 1097-6, cl. 7, cl. 8, cl. 9 and Annex В |
| Particle density -Pyknometer method | БДС EN 1097-7 |
| Water content | БДС EN 1097-5  БДС ЕN ISO 17892-1  БДС ЕN ISO 17892-1/A1 |
| Loose bulk density and voids  -Loose bulk density  -Voids | БДС EN 1097-3 |
| Reference density and water content. Proctor method. | БДС EN 13286-2 |
| Elastic and deformation modulus by loading with a round plate | БДС 15130 |
| Los Angeles coefficient | БДС EN 1097-2 |
| Affinity with bitumen | БДС EN 12697-11, cl. 7 |
| Density in-place by the sand replacement method | AASHTO T 191 |
| Shells content | БДС EN 933-7 |
| California bearing ratio – CBR | БДС EN 13286-47 |
| Liquid limit | AASHTO T 89 |
| Plasticity limit | AASHTO T 90 |
| Plasticity index | AASHTO T 90 |
| Methylene blue test | БДС EN 933-9 |
| Resistance to fragmentation under static load | БДС EN 206**+**А2/NА |
| 4. | Bituminous hot mixtures for road pavements | Determination of particle size distribution | БДС EN 12697-2+A1 |
| Soluble binder content | БДС EN 12697-1, Annex В, cl. В.2.1 |
| Bulk density of bituminous mixture | БДС EN 12697-6 |
| Maximum density of bituminous mixture | БДС EN 12697-5 |
| Air voids content | БДС EN 12697-8, cl. 4 |
| Water sensibility | БДС EN 12697-12 |
| Tensile strength | БДС EN 12697-23 |
| Reference density of bituminous mixture | БДС EN 12697-9\* |
| Stability of bituminous mixture by Marshall method | БДС EN 12697-34 |
| Flow of bituminous mixture by Marshall method | БДС EN 12697-34 |
| Compaction degree | БДС EN 12697-9\* |
| Determination of the dimension of a bituminous specimen | БДС EN 12697-29 |
| Thickness of a bituminous pavement | БДС EN 12697-36, cl. 6.1 |
| Irregularities of the pavement | БДС EN 13036-7 |
| 5. | Fresh concretes | Slump | БДС EN 12350-2 |
| Density | БДС EN 12350-6 |
| 6. | Concrete | Compressive strength | БДС EN 12390-3 |
| Flexural strength | БДС EN 12390-5 |
| Density | БДС EN 12390-7 |
| Water impermeability | БДС EN 206+A2/NA,  Annex NA.N |
| Depth of penetration of water under pressure | БДС EN 12390-8 |
| 7. | Hydraulically bound materials | Compressive strength | БДС EN 13286-41 |

**To perform sampling of:**

|  |  |  |
| --- | --- | --- |
| **Type of the scope:** *Flexible* | | |
| **№** | **Product** | **Sampling method**  **(standard/validated)** |
| **1** | **2** | **3** |
| 1. | Bitumens and bituminous binders | БДС EN 58 |
| 2. | Aggregates | БДС EN 932-1 |
| 3. | Bituminous mixtures | БДС EN 12697-27 |
| 4. | Fresh concrete | БДС EN 12350-1 |

*\* 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.*