SUITABILITY TEST PLAN

1. **PT Provider's identification and address**
   PT Provider UCLSB Ltd,
   6, Ivan Dimov Str., Gabrovo 5300, Bulstat: 206627780,
   Person in charge: Eng. Iliyan Iliev.

2. **General information about the Technical design**

2.1. Personnel involved in the creation and implementation of the scheme

Interlaboratory technical project MC 01 2026 is organized by PT Provider UCLSB's expert team consisting of:

- Project Manager – eng. Iliyan Iliev
- Project Coordinator – eng. Yordan Iliev
- Materials Engineer – prof. eng. Ivan Rostovsky, PhD
- Metrologist – eng. Iliyan Iliev
- Data Collection and Coding Expert – eng. Yordan Iliev
- Technical Expert in performance evaluation– assoc. prof. eng. Lyubomir Brakalov, PhD

The members of the expert team of PT Provider UCLSB have the necessary qualifications (specialized education), skills and experience in organizing Interlaboratory Comparisons and Proficiency Tests and are in contractual relations with PT Provider UCLSB. The address of PT Provider UCLSB can be considered as their address.

2.2. The procedure for conducting an Interlaboratory Technical Project MC 01 2026 includes organizing, conducting and evaluating the tested material (raw material, product) through the participation of the laboratories in the interlaboratory comparison and suitability testing according to established conditions, an approved program, confirmed invitation and application for participation and implementation of the provided instruction.

Along with the competence assessment, the project aims to investigate the capabilities of laboratories to use the evaluation of uncertainty to present themselves more authoritatively, in order to present themselves more authoritatively, reliably and qualitatively in the measurement (determination) of indicators (characteristics) that are characterized by significant dispersion (uncertainty) inherent in natural and artificial building materials.

2.3. The technical project is carried out according to the following Suitability testing scheme according to EN ISO/IEC 17043 :2023, as follows:

- Split sample testing schemes: The source material shall be divided simultaneously among the laboratories participating in the testing (section A.2.2 of Annex A of EN ISO/IEC 17043:2023). Sufficient material will be retained for homogeneity checks, possible subsequent testing and testing of sample stability.
- Homogeneity will be determined through appropriate tests by the laboratories where sampling, homogenization, reduction and distribution of the samples are carried out in the presence of the PT Provider UCLSB and according to its procedure. After the evaluation of the results by the technical expert and verification of homogeneity, the samples will be sent to the participants. Otherwise, a new homogenization will be carried out according to the current procedures of the PT Provider UCLSB.

- An identification code will be assigned to each laboratory, which will be indicated in the upper right corner of the instruction, for confidentiality purposes. The applied PT scheme is one-time in regard to the frequency of implementation and at the same time is multilateral in regard to the number of participants.
- Laboratories accept as the "true value" (accepted value) and its uncertainty the value obtained by the independent expert through statistical processing of all equally ranked laboratory results.

2.4. Methods to be used to determine the homogeneity and stability of the sampling/test items:

Homogeneity will be determined through appropriate testing by a subcontractor of the PT Provider according to its procedure and in the presence of members of its team. After the evaluation of the results by the technical expert and verification of the required level of homogeneity, the samples will be sent to the participants. Otherwise, a new homogenization will be carried out according to the current procedures of the PT Provider UCLSB.
The stability of the samples will be determined through appropriate tests by the subcontractors at the request of the PT Provider UCLSB through the same tests that were conducted to determine the level of homogeneity.
The assessment of the level of homogeneity and stability of the samples will be carried out by the technical expert of PT Provider UCLSB, for which purpose the statistical methods and information contained in EN ISO/IEC 17043:2023, ISO 13528:2022, the standard methods included in this suitability test, etc. will be used.

3. Subcontracted activities

PT Provider UCLSB for this technical project will use the services of the Accredited Construction Laboratory BKS - Gorna Oriahovitsa with address Gorna Oriahovitsa, Ivan Momchilov Str. 1 B, a subcontractor of the PT provider, for sampling, homogenization, reduction, distribution and packaging of the samples, tests to establish homogeneity and stability under the control of PT Provider UCLSB.
Persons present during the sample preparation process may be the Project manager - Eng. Iliyan Iliev, the Project coordinator - Eng. Yordan Iliev and the Materials Engineer - prof. eng. Ivan Rostovsky, PhD .

4. Participation criteria and adequacy assessment

Invited to participate in the project are accredited laboratories , those that are in the process of accreditation, and laboratories that have many years of or no practical experience in the field of the offered products and characteristics.

The processing, analysis and evaluation of the results obtained will be carried out by the technical expert as specified in point 14.

Only assessments that are appropriate for the purposes of the ILC(ITP) are included in the project.

5. Number and type of expected participants in the suitability testing scheme

Based on the experience of PT Provider UCLSB in conducting PT schemes, the expected number of laboratories is about 20, all of which are from the construction sector. The minimum number of participants in MC 01 2026 is set at 5.

6. Selection of test methods, specified characteristics, range of expected values and sample preparation methods.

Interlaboratory technical project MC 01 2026 will cover the product: Asphalt /bitouminous/ mixtures, according to the pointed standards and parameters (characteristics) in the following table:

Test subject	Code of the standard	Name of the standard	Tested parameters (characteristics)	Range of expected values
Asphalt /bitouminous/ mixtures	EN 12697-6, Procedure B (9.3)	Bituminous mixtures - Test methods for hot mix asphalt - Part 6: Determination of bulk density of bituminous specimens	Bulk density ua	(2.355-2.390) Mg/m3
	EN 12697-5, Procedure A (9.2)	Bituminous mixtures - Test methods for hot mix asphalt - Part 5: Determination of the maximum density	Maximum density ua	(2.500-2.525) Mg/m3
	EN 12697-8, clause 4	Bituminous mixtures - Test methods for hot mix asphalt - Part 8: Determination of void characteristics of bituminous specimens	Air voids content ua	(4.0-7.0)%
	EN 12697-34	Bituminous mixtures - Test methods for hot mix asphalt - Part 34: Marshall test	Stability ua	(9-12) KN
	EN 12697-34	Bituminous mixtures - Test methods for hot mix asphalt - Part 34: Marshall test	Flow ua	(2.0-5.0) mm
	EN 12697-1	Bituminous mixtures - Test methods for hot mix asphalt - Part 1: Soluble binder content	Soluble binder content ua /three determinations/	(4.0 – 6.0)% bitumen related to the asphalt mixture
	EN 12697-2	Bituminous mixtures - Test methods - Part 2: Determination of particle size distribution	Particle size distribution /ua/ /three determinations/	% passed through sieves #12,5 mm ;#8mm; #4mm; #2mm; #1mm; #0.500 mm; #0.250mm; #0.125 mm;#0.063mm

Note: All tests and sample preparation shall be conducted according to the latest (current) editions of the standards.

Important : The preparation of test samples for determining the characteristics of "maximum density", binder and particle size distribution will be carried out in accordance with EN 12697-28 Asphalt mixtures. Test methods. Part 28: "Preparation of samples for the determination of binder, water content and particle size distribution", as specified in the standards EN 12697-5; EN 12697-2; EN 12697-1.

The preparation of the sample for testing the characteristics of bulk density, stability and flow will be carried out according to the procedure of the standard BDS EN 12697-30 Asphalt mixtures. Test methods. Part 30: Preparation of test specimens by impact compaction at 140 °C and 75 impacts on each side.

Participants receive a sample of approximately 12-16 kg part of the total sample, which must be homogenized before starting the sample preparation and testing of the characteristics claimed by them. All testing and preparation of the samples are carried out by the participants according to the latest current editions of the standards.

7.Potential sources of errors that may hinder good performance in MC 01 2026.

Ignorance of procedures and relevant methods for sampling, testing and reduction.

Improper application of procedures according to the relevant methods of sampling, testing and reduction.

Use of inappropriate technical means.

Use of defective or uncalibrated technical equipment.

Incorrect assessment of measurement uncertainty.

Incorrect transfer of data and information in the forms provided by the PT provider.

8. Requirements for the production, quality control, storage and distribution of suitability test items.

- For the purposes of suitability testing, certified materials are used, produced by companies that have an implemented production control system, and these materials are used in the production of construction raw materials and products.
- For the purposes of suitability testing, certified materials may be modified by one of the subcontractors at the request of the PT provider, in order to achieve a higher level of homogeneity / for example for the purposes of determining the particle size distribution / Specially prepared samples may also be used.
- Quality control is carried out on certain characteristics by subcontractors at the request of the PT Provider.
- The storage of the suitability test objects is carried out by the PT Provider's subcontractors.
- The distribution of test objects is carried out in appropriate packaging by approved courier service providers.

9.Confidentiality

Participants undertake not to exchange information with each other, nor to use external information that would suggest to them test results from other laboratories during the implementation of the Suitability testing schemes. For this reason, it is necessary to complete the tests as soon as possible. The heads of the relevant conformity assessment bodies are obliged to complete QF 7.2-8 „Declaration of confidentiality". For confidentiality purposes, each participant receives a sample code and a laboratory code. These will be written by the Data collection and coding expert on the QF 7.2-7 „Test results sheet". The identity of the participants in this suitability test will be known only to the data collection and coding expert, the manager and the coordinator of the suitability scheme.

For serious violations, participants may be removed from the scheme.

10. Instructions and guidelines to participants (including data protection levels, confidentiality), coding of participants individually and in the report.

Electronically, as well as from the website of the PT Provider UCLSB https://ptprovider.UCLSB.org/bg/pt-schemes/ laboratories receive QF 7.2-3 „Invitation for participation" in interlaboratory comparison and proficiency testing, QF 7.2-4 „Application form" and this Proficiency Testing Plan - QF 7.2-1. After confirming their participation and according to the expiration of the specified deadlines for application, the laboratories receive their samples. Each laboratory that has applied for participation receives a package of documents electronically, which includes the QF 7.2-6 „Protocol for sample receipt" and QF 7.2-5 „Instruction for conducting of proficiency testing", after which the laboratories carry out separate determinations of each characteristic/indicator chosen by them within the specified period. The deadlines for confirmation of participation by the laboratories, for receipt and testing of the samples, as well as the deadlines for feedback with the results obtained and the presentation of the report will be mentioned in the invitation and instructions for conducting /only for the participating laboratories/, which will accompany each sent sample for testing with a unique identification code of the sample and the laboratory.

Upon receipt of the test samples, the laboratories also receive QF 7.2-7 „Test results sheets" , indicating the unique code of the respective laboratory, as well as the sample code, known only to the Project coordinator. The heads of the relevant conformity assessment bodies are obliged to complete QF 7.2-8 „Declaration of confidentiality".

Confidentiality of results until their final presentation is achieved in the following way. The coordinator notifies the CAB that he is sending a sample for testing so that it is ready to receive it. The coded sample is transported to the CAB packaged in a way that ensures identity, integrity, anonymity and metrological stability. Upon acceptance, the CAB completes QF 7.2-6, which is returned to the coordinator. After completion of the tests and uncertainty assessment, the CAB completes the results form QF 7.2-7, which contains only the minimum required information and the participant code. Form QF 7.2-7 are sent to the Data collection and coding expert, responsible only for the information. The Expert in data

collection and coding, Eng. Yordan Iliev, collects the results and transmits them in QL 7.2-3 „Coded list of results" and QL 7.2-2 „Coded list of participants", participating in MC 01 2026 and transmits them to the Technical expert for evaluation of the results – assoc. prof. eng. Lyubomir Brakalov, PhD for processing and general and individual evaluation. The Technical expert has signed a confidentiality declaration, according to which he is not allowed to disseminate the information - QF 7.2-8. Nevertheless, in principle he does not have any access to primary information about the CAB and the tests.

As can be seen from the above, there is a separation of the information flow and the movement of samples, which guarantees the anonymity and impartiality of the participants and the independent expert.

In turn, the participating CABs and coordinators undertake not to disseminate information from the Interlaboratory Technical Project report and results in any form, unless requested for information by SNAS or another authorized state body. When submitting results to such a body, CABs are obliged to inform it of the confidential nature of the interlaboratory comparison. The results may also be used in an audit of the CAB, but this should also be ensured by a confidentiality declaration from the auditor. That is why all participants in MC 01 2026 also sign confidentiality declarations, which are an integral part of the Interlaboratory Technical Project MC 01 2026.

11. Transporting samples: The samples will be transported by the organizers in appropriate packaging by approved courier service providers (Bulgarian Post and Speedy).

12. Performing the test*:*

During the testing process, participants are required not to use external information that would suggest test results from other laboratories. For this reason, it is necessary to complete the tests in the shortest possible time. Participants must strictly comply with the QF 7.2-5 „Instruction for conducting of proficiency testing", provided to them.

13. Completion of interlaboratory comparison and proficiency testing:

The deadline for submitting the complete documentation will be mentioned in QF 7.2-5 „Instruction for conducting of proficiency testing", which will be sent by the organizer. The test protocols will be sent to the e-mail address specified by the organizer in the instruction.

14. Reporting and evaluation of ILC/ITP results. Detailed description of the statistical analysis used and criteria for evaluating participant performance.

The final report - QF 7.4-1 will be prepared by the Technical expert – assoc. prof. eng. Lyubomir Brakalov, PhD within the deadline specified in the instruction and will contain statistical processing of the results and conclusions on the effectiveness of the process.

The statistical analysis used will be in accordance with EN ISO/IEC 17043:2023, ISO 13528:2022 , etc.

By agreeing to the rules of participation, the CABs accept as the "true value" (accepted, attributed or assigned value) and its uncertainty their estimates obtained by the technical expert through standard statistical processing of all equivalent laboratory results (CAB).

To eliminate gross errors, the Grubbs criterion will be used in this ILC, supplemented by limiting the data used by the three sigma criterion and the Interquartile Range Method. To check whether all data lie within a normal distribution interval with a confidence probability of at least 0.95, the Kolmogorov-Smirnov criterion (KS) will be used.

The assessment of the reliability of the data in this ILC will be used to assess the accepted value and its uncertainty made with the Kolmogorov and Smirnov criterion.

The report (QF 7.4-1) will include the average results of the participants and will be evaluated according to the following criteria for the performance of the participants: deviation

(bias) ; z – score; ζ – score, according to the requirements of ISO 13528:2022 and EN 17043:2023 .
Detailed information on the statistical apparatus used to evaluate the results and the additional equipment used will be given in the final report (QF 7.4-1).
A document (Certificate QF 7.4-2) on the participation of the laboratories in the interlaboratory comparison and proficiency testing will be attached.

15.Origin, metrological traceability and measurement uncertainty of the prescribed/accepted value.

The accepted value, its standard deviation and its uncertainty will be obtained by the technical expert through statistical processing /EN ISO/IEC 17043:2023, ISO 13528:2022/ of all the results of the participants, which will be considered as equal.

16. Proficiency testing scheme deadlines and information for participants.

- Application form submission (QF 7.2-4) - **until 15.04.2026 .**
- Sending the objects for testing - **until 10.05.2026 .**
- Sending the sample tracking code along with the document package (QF 7.2-5 „Instruction for conducting of proficiency testing” , QF 7.2-6 „Protocol for sample receipt” , QF 7.2-7 „Test results sheets” , QF 7.2-8 „Declaration of confidentiality” , and QF 7.4-3 „Feedback sheet”) to the registered participants by e-mail: **no later than 10.05.2026 .**
- Conducting the test by the participants **from 15.06.2026 to 17.06.2026.**
- Submission of QF 7.2-7 „Test results sheets” for all indicators - **until 18.06.2026.**
- Preparation of a final report by **25.07.2026.**
- Sending a final report with a certificate to participants by **07.08.2026.**
- The final report in English will be sent within three weeks afterwards.

Detailed information will be provided to participants via QF 7.2-5 „Instruction for conducting of proficiency testing” – which will be sent with the document package by e-mail.
In case of any changes to the timetable for conducting this aptitude test or other important changes, all participants will be notified via e-mail.

17. Actions in case of lost or damaged test object.

- Test objects within the Republic of Bulgaria arrive 24 to 48 hours after being sent and 5 to 20 days abroad.
- All participants are notified via e-mail about the sending of the samples. The full package of documents from the provider is also sent as an attachment to this e-mail (QF 7.2-5 „Instruction for conducting of proficiency testing” , QF 7.2-6 „Protocol for sample receipt” , QF 7.2-7 „Test results sheets” , QF 7.2-8 „Declaration of confidentiality” and QF 7.4-3 „Feedback sheet”). Participants from abroad also receive a waybill number to track the samples.
- In case the sample is unsuitable or damaged, the participant sends objective evidence /photos/ together with the sample acceptance protocol. A member of the PT Provider team sends a new sample from the reserve samples provided for this purpose.
- In the event of loss of a test object, regardless of whose fault it is: the PT provider, the participant or the courier service provider, a member of the provider's team sends a new sample from the reserve samples provided for this purpose.

Important for participants: Upon receipt of the samples and documents, participants are obliged to electronically complete and immediately send form QF 7.2-6 „ Protocol for sample receipt" for each sample to e-mail: ms2010@abv.bg, in order to ensure their integrity and suitability for testing.

18. Feedback and communication with participants

QF 7.4-3 "Feedback Sheet" is filled in. It is sent by e-mail together with the other documents accompanying the test samples. The return of QF 7.4-3 "Feedback Sheet" is also carried out by e-mail to the provider within the period specified in QF 7.2-5 „Instruction for conducting of proficiency testing". Throughout the entire period of the Interlaboratory Technical Project MC 01 2026 the head of the respective participating laboratory or another person authorized for the purpose maintains direct contact with the Project Manager and/or Project Coordinator. This contact can be made via telephone calls, letters and e-mails.

19.Publicity of the information received from the participants and preparation of a final report.

Information regarding the suitability test may be provided to any participant upon written request and subject to confidentiality requirements towards other participants.
The members of the PT Provider UCLSB team have signed confidentiality declarations, whereby they undertake not to disseminate information from the suitability test in any form, unless requested for information by the PT Provider UCLSB accrediting body.
The final report will be provided only to the participants in this proficiency test and for information by the accreditation body of PT Provider UCLSB, if requested by it.
There are no other interested parties or regulatory authorities to whom PT Provider UCLSB must provide the results of this suitability test, of which the participants shall be notified in advance or promptly in writing.

20. Planning or participating in technical meetings whit participants

If requested by a participant/participants, a meeting can be held to discuss the method of sample preparation, the method of sampling and/or testing, the primary and intermediate results, the final results, the evaluations received and the final report. This is usually necessary when there is significant dispersion of results. The meeting can also be held online via various platforms such as zoom, etc.
Each such meeting is recorded and retained as evidence of its holding.

21.Financial conditions

The financial conditions are specified in the application form– QF 7.2-4.

22.Contacts

Project Manager and Head of Suitability Test Schemes – eng. Iliyan Iliev + 359877144413
Project Coordinator – eng. Yordan Iliev +359895688062
e-mail: sslsb@yahoo.com, sslsb@abv.bg;
website: www.ptprovider.sslsb.org;

Ratified by:
Manager of PT Provider UCLSB:
/eng. Iliyan Iliev/