PAVEMENT TESTING SERVICES (PTS) LIMITED
PTS PRODUCT ASSESSMENT AND CERTIFICATION

PRODUCT ACCEPTANCE SCHEME
MCHW SHW VOLUME 1 CLAUSE 104.15 AND 104.16

GUIDELINES AND CRITERIA DOCUMENT
PTSSG 942

FOR THE ASSESSMENT AND CERTIFICATION OF THIN SURFACE COURSE SYSTEMS

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Acknowledgements

This document is published under the Pavement Testing Services Limited, referred to PTS Ltd herein Product Assessment and Certification Scheme (PTSPAS).

This document has been compiled by members of the PTS Ltd Certification Team as employed by PTS Ltd.

This current version of the PTS Guidelines and Criteria Document PTSSG 942 has been reviewed and endorsed by the PTS Technical Supervisory Panel (PTSTSP), it is a living document, developed from the current industry Specification, Codes of Practice, and industry best practice, undergoing editing, and updating to incorporate changes to the industry documents.

The PTSTSP provides technical oversight on the operation of the Scheme, formally consents to the issue of Assessment and Certification requirements of the Specialist Groups (SGs) and includes interested parties within:

- Roads Authorities
- Statutory Undertakers
- Professional Institutions and Trade Bodies
- Patching and Reinstatement Contractors
- Material Suppliers
- System Providers

Terms and Conditions

Revisions

Issue	Details / Revision Changes	By	Reviewed / Approved By	Date
1	Introduction of Technical Appendix Requirements	CH	PTS/TSP	01.02.18
2	Formation of Guidelines and Criteria Document	CH	PTS	28.03.18
3	Review of SHW900 Series Issue May 2018	CH	PTS	31.07.18
4	Further development of Guidelines and Criteria Document	CD/VS	PTS/TSP	01.11.18
5	Update to Reference documents publication date	VS	PTS	13.01.20
6	PTSTSP Feedback	VS/JB	PTS	27.04.21
7	Revision of Requirements in line with feedback from UKAS and Panel members	VS/JB	PTS/TSP	21.07.21
8	Revision of clarity / terminology of the requirements for the named product, its manufacture and installation	VS/JB	PTS	28.10.21
9	Revision to incorporate Warm Mix Asphalt (July 2021, Series 900 revision) and exclusion to reference 942TS (07/21) Stone Mastic Asphalt Surface Course, SMA TS2010 specification (Transport Scotland) 942 WG	VS/JB	PTS/TSP	07.02.22
10	Revision to formatting following acquisition by Phenna Group/ Further development of Appendix 1 and direct reference to MCHW SHW Cl. 903, and requirement for NHSS16	VS/JB	PTS/TSP	26.08.22
11	Revision to accommodate UKAS feedback	VS/JB	PTS/TSP	09.09.22
12	Inclusion of reference to alternative non-bituminous binders	VS/JB	PTS/TSP	06.03.23
13	Amendment to scope wording for clarity of accreditation and cross reference to PTS England, Wales and Northern Ireland UKAS schedule, amendment to logo	VS/JB	PTS	13.07.23
14	Correction / Clarification of exclusion of both Scotland and Wales SMA materials (TS 2010 and 942 WG)	VS/JB	PTS	11.03.24

Contents

Scope

The purpose of this Guidelines and Criteria Document is to set out the criteria for the Assessment and Certification of Thin Surface Course Systems under the PTS Assessment and Certification System, in line with PTS Process W15 PTS Product Assessment and Certification as required in PTS Product Acceptance Scheme in accordance with MCHW MCHW SHW Volume 1 Clause 104.15 and 104.16.

The scope of assessment and certification under this PTS Guidelines and Criteria document is for the thin surface course systems only as laid in England and Northern Ireland and as named on the PTS Application form. The named product must be manufactured in accordance with the relevant EN standard.

The named product must be installed/applied in accordance with the relevant MCHW SHW Clauses, associated standards, Sector Scheme 16, and Code of Practices. Specific contractual requirements will be taken into consideration as required for any scheme installation trial.

For the purpose of this assessment, the object of conformity is defined as the named product, and the associated certification of this named product expressly excludes any ancillary/preparatory treatments/materials used pre-/post-application of the named product.

The assessment and certification process specified within this document shall be structured and implemented to provide assurance to PTS Ltd that the named product(s), when supplied for its intended use and installed shall be in accordance with the manufacturer's instructions and will give the performance and level of safety required by the Specification and be fit for purpose in line with BS EN ISO IEC 17065.

The Product Assessment shall follow the stages detailed in this document and will be carried out in accordance with the Guidelines and Criteria Document shown in Appendix 1.

For this Guidelines and Criteria Document, appropriate extracts from MCHW SHW Series 900 will be known as 'the specification'.

The adopted test methods, in-situ and laboratory test results shall be derived from UKAS accredited testing laboratories to ISO/IEC 17025, for the relevant sampling and test methods, recognized research bodies and Universities and/or data supplied by the Overseeing Organisation. The content of this Guidelines and Criteria Document is for assessment and certification purposes only of the named product(s) on the PTS Application Form and is not intended for use on a contractual basis as the specification. If other claims are being made by the Applicant relating to the performance of a system, a review of any additional assessment work required and any associated extension(s) to Accreditation Scope will be reviewed by the PTS TSP prior to adoption, the output of any such work will be detailed within the issued Certificate under 'Other Investigations' and identified as outside of the scope of MCHW SHW 942 as necessary.

All technical references and standards referred to within these Guidelines and Criteria Document are the published versions as referenced in the Bibliography.

The Assessment and Certification requirements for the Product certified under this Scheme shall be developed ensuring due consideration to the requirements of the users of the products and those responsible for the highways on which such products shall be used or installed. PTS Ltd makes no warranties, representations, or undertakings in respect of this Guidelines and Criteria Document.

In no event will PTS Ltd be liable for any direct or consequential loss or damage arising from its use or use of, or reliance on its content.

PTS Ltd are an UKAS accredited Certification Body for BS EN ISO/IEC 17065 for product certification, detail as per UKAS Schedule (see website for most current version) and are in process of expanding the UKAS schedule by seeking accreditation for the Product Assessment as part of the Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16 to include additional MCHW SHW clauses.

PTS Ltd as a UK Approved Body (2448) can award UKCA Markings to Products under Construction Products Regulation 2011 (retained EU law EUR 305/2011) as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020.
UK Market Conformity Assessment Bodies - GOV.UK (www.gov.uk)

PTS Ltd are registered on the UKMCAB (UK Market Approved Body) Database for Technical Assessment as a Technical Assessment Body (TAB) complying with the competencies requirements of MCHW SHW Volume 1 Clause 104.16 (i) and Table 1/1.

The requirement of MCHW SHW Clause 104.15 for a Product Acceptance Scheme is satisfied by PTS's Product Assessment and Certification capability against Guidelines and Criteria as set out in MCHW SHW.

This assessment and certification as carried out under this Guidelines and Criteria Document is valid only within the UK.

Definitions, Abbreviations and Acronyms

Applicant	Company requesting for PTS Ltd to provide assessment and certification
CE (Mark)	CE marking is a European regulatory mark. CE marked products are entitled to free movement throughout the European market (EU and EEA). The CE mark confirms the product complies with all relevant product supply law, and its presence together with the Declaration of Performance gives the product to which it is affixed presumption of conformity with a harmonised European standard (hEN).
Certificate Holder	Company awarded with PTSPAS Certificate
CoP	Code of Practice
Corrective Action Report	Detail corrective actions following non-conformance / finding raised during an assessment stage. The report details the cause and extent of the non-conformity, action taken (including action to prevent recurrence) and the corrective action sub-mitted to enable review of effectiveness of correction, its verification and satisfaction close out of the non-conformance or additional action if necessary.
COSHH	Control of Substances Hazardous to Health
CPR	The EU Construction Products Regulation 2011 (retained EU law EUR 305/2011) as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020 seeks to remove technical barriers to the trade of construction products in the European single market. The CPR aims to ensure the reliability of information on the performance of construction products. This is achieved through harmonised European product standards using a common technical language and uniform assessment methods. Following EU exit legislation which makes amendments to the regime for construction products post transition period will now apply in England, Wales, and Scotland only. The regime in Northern Ireland will match the EU requirements for construction products.
DMRB	Design Manual for Roads and Bridges
Designated standards	Following UK exit from the EU, all existing harmonised European standards became UK 'designated standards'. This means that immediately after the end of the transition period of EU exit, harmonised European standards and UK designated standards will be identical.
DoP	Declaration of Performance
Equivalent Non-bituminous Binder	A binder derived from a non-bituminous source that otherwise functions physically and structurally in a way equivalent to a bituminous binder with the required characteristics.

FPC	Factory Production Control
Lead Auditor	A recognised lead auditor having satisfactorily completed an approved training course in Management system(s) operation and auditing. The course must have included an examination recognized by IRCA standards, with competent audit management skills. Competencies for Technical Assessment Bodies given in EU Construction Products Regulation 2011 (retained EU law EUR 305/2011) as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020, Annex IV, Table 2 with the additions given in Table 1/1 of MCHW SHW of Clause 104.16 also required, BS EN ISO/IEC 17065 and BS EN ISO/IEC 17021-1
MCHW SHW	Manual of Contract Documents for Highway Works Specification for Highway Works
Method Statement	Method Statement is a documented description that gives specific instructions on how to undertake activities safely and the measures needed (including identification of any potential hazards and what precautionary measures are in place).
NHSS16	National Highways Sector Scheme 16 for the Laying of Asphalt Mixes National Highways Sector Scheme - Bespoke quality management schemes which supplement ISO 9001:2015 detailing specific application to highway construction and maintenance activities and included on the UKAS CertCheck website Note: MCHW SHW Subclause 903.3 States: “Bituminous pavements shall be laid by organisations registered to and operating in compliance with BS EN ISO 9001.2015 ‘National Highways Sector Scheme 16 for the Laying of Asphalt Mixes’ or equivalent listed in Appendix A and constructed using the materials specified in contract specific Appendix 7/1.”
Overseeing Organisations	Organisations responsible for the development of highway / road network in England, Scotland, Wales, and Northern Ireland
Product Family	Products within the scope of a given MCHW SHW clause and the associated PTSPAS: for example: 6mm, 10mm, 14mm & 20mm thin surface course systems (TSCS) are all within the scope of MCHW SHW Clause 942 (i.e., in the 942 Product “family”) and within the scope of the SG942 PTSPAS.
PTS Approved Laboratory	An approved laboratory, or recognised research body approved by PTS Ltd to carry out test work on behalf of PTS Ltd, i.e., sub-contracted by PTS Ltd, which may lead to the approval of a product and the issue of a PTS Certificate. Before approval, the laboratory will have demonstrated to PTS Ltd that it has the relevant expertise, equipment, and quality systems in place to carry out the work required
PTS Ltd	Pavement Testing Services Ltd

PTSPAS Management Committee	PTS Ltd Management Committee team to generate and operate the PTSPAS. Consults with PTSTSP members. Competencies to Table 1/1 of MCHW SHW Clause 104.16
PTSPAS	Pavement Testing Services Product Assessment Scheme
PTSTSP	Pavement Testing Services Technical Supervisory Panel as defined in MCHW SHW Volume 1 Clause 104.16
PTS Technical Supervisory Panel Instructions	PTSTSP Review Process for the Determination of requirements – Guidelines and Criteria documents and Certification Authorisation
QMS	Quality Management System in accordance with BS EN ISO9001:2015 - Standard that helps organisations ensure they meet customer and other stakeholder needs within statutory and regulatory requirements related to a product or services.
Quality Plan	Quality Plan is a document or a defined group of documents that together specify standards and associated references and the requirements for planning, implementation, and measuring/monitoring requirements for production plant(s). It forms the methodology to be followed relevant to the system to be assessed (including responsibilities, production procedures, testing, tolerances, and controls).
Recognised Certification Body	Certification Body that is accredited by UKAS
Recognised Research Body	A Recognised Research body is a disciplined group approved by PTS Ltd that specialise in product development or testing or an individual Recognised Researcher or equivalent who are Researchers / testers with an equivalent level of experience and competence as possessing special knowledge and skills derived from research, education, and training at a high level, and is recognised by the public as such.
SG	Specialist Group – a group of subject matter experts convened as deemed necessary by the Technical Supervisory Panel to review, for example, specific requirements, Clauses, or sub-clauses of the MCHW SHW
Technical Expert	Person with competent working knowledge of nationally recognised technical discipline within the construction industry, to provide technical expertise during certification audits / assessments in conformance with standards BS EN ISO/IEC 17065 and BS EN ISO/IEC 17021-1, PTS procedures and processes. Competencies for Technical Assessment Bodies given in EU Construction Products Regulation 2011 (retained EU law EUR 305/2011) as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020, Annex IV, Table 2 with the additions given in Table 1/1 of MCHW SHW of Clause 104.16.

UKAS	United Kingdom Accreditation Service – The National Accreditation Body for the UK. Appointed by UK Government (the Department for Business, Energy, and Industrial Strategy) to provide accreditation to organisations that provide services (certification, testing, inspection, and calibration).
UKAS Accredited Laboratory	Testing laboratory with accreditation to ISO/IEC 17025 for carrying out testing on samples to traceable standards, references or verified in house methods.
UKCA (mark)	The UKCA (United Kingdom Conformity Assessed) marking applies to most goods previously subject to the CE marking. The UKCA marking came into effect on 1 January 2021 and is used for goods being placed on the market in Great Britain (England, Scotland, and Wales). The UKCA marking alone cannot be used for goods placed on the Northern Ireland market, which require the CE marking or UKNI marking CE marking is only valid in those parts of the UK where GB and EU rules remain the same.
Visual Assessment	Procedure for assessing visual condition.
Warm Mix Asphalt (WMA)	Warm mix asphalt (WMA) is mixed at temperatures 20°- 40°C lower than hot mix asphalt. Environmental benefits of using WMA include: carbon reduction and reduced project costs On-site benefits include reduced nuisance fuming, odour and steam with safer working conditions.

Assessment Stages

The Assessment and Certification process is undertaken in stages and in accordance with PTS Process "W15 PTS Product Assessment and Certification", as required in PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16 and PTS Procedure V4 Audit Plan for evaluation, review, decision, and certification. All documents are available on the PTS website. https://www.ptsinternational.co.uk

Each stage of the assessment process must be successfully completed and, where applicable, a report is issued detailing the assessment stage findings prior to the commencement of the next stage. The applicant can request for stage 3 (witnessed installation) to be carried out as accessibility of an installation site becomes available at any time during stages 1, 2 and 4. The applicant will have the option of withdrawing from the assessment process at any stage should the named product(s) on the Application fail to comply with the requirements.

Conducting Audits / Assessments

In order that an effective assessment may be conducted, auditors and technical experts shall conduct all audits and assessments in a professional manner and all data/documented information shall be handled with utmost confidentiality in accordance with PTS Process "W3 - On Site Audit".

During the course of the assessment, should there be the need to modify the product(s) defined by the Applicant (e.g. as a result of failure of the product(s) to meet the requirements), any resultant changes to the assessment, including any additional assessment work, will be considered by PTS Ltd.

Terminology Used During the Audit / Assessment

Opportunity for Improvement or Observation

Opportunities for improvement or observations, made during audit or assessment, may be identified, and recorded without a recommendation of specific resolutions to the issues raised, unless a lack of these is prohibited by the requirements of the Scheme. The subject matter relating to the opportunities for improvement or observations may pose no current risk to the functioning of the system but could lead to a non-conformity in the future if not addressed. Opportunities for improvement or observations should be considered for potential improvement and to further investigate any weaknesses for possible inclusion in the corrective action program.

Non-Conformities

Non-conformities represent one or more of the following:

- A weakness or issue based on objective evidence,
- the absence of or a significant failure to implement and/or maintain conformance to the requirements of the applicable Standard / Specification / Code of Practice.
- a situation which would, based on available objective evidence, raise significant doubt as to the conformance of products that are to be placed on the market.

Each non-conformity raised shall be recorded against a specific requirement of the audit criteria and shall contain a clear statement in the report of the category of the non-conformity and identify in detail the objective evidence on which the non-conformity is based.

Audit findings which are non-conforming shall not be recorded as opportunity for improvement.
Non-conformities shall be discussed with the Applicant to ensure that the evidence is accurate and that the non-conformities are understood. The Applicant shall analyse the cause of the non-conformity and provide the appropriate corrective action to be taken, or planned to be taken, to eliminate the non-conformity.

A defined time frame shall be agreed for the corrective action to be taken and evidence of the corrective action having been undertaken submitted to PTS Ltd. Details are submitted to PTS Ltd using the Corrective Action Report Form.

The Lead auditor shall attempt to resolve any difference of opinion between the audit team and the Applicant with respect to audit evidence or findings, any unresolved points shall be raised and recorded in accordance with PTS Ltd procedures and processes for corrective actions, complaints and appeals and Terms of Business. The Complaints, Appeals and Disputes Policy is available for reference on the PTS website.
https://www.ptsinternational.co.uk

Audit Report

PTS Ltd shall provide a written report following each audit to the Applicant. The audit team may identify opportunities for improvement but not specific solutions to be implemented. Ownership of the audit report shall be retained by PTS Ltd.

The Lead auditor / technical expert shall ensure that the audit report is prepared from all evidence as submitted from the audit team and shall also be responsible for its content. The audit report shall provide an accurate, concise, and

clear record of the audit to best enable an informed decision on the Applicant's readiness for the next stage of the assessment process. PTS Ltd shall retain ownership of the audit reports.

PTS Ltd shall review the corrections, corrective actions and identified causes as submitted by the Applicant to determine if these are acceptable against the matters raised in the non-conforming audit report. PTS Ltd shall verify the effectiveness of any correction and corrective actions taken. The evidence obtained to support the resolution of non-conformities shall be recorded on the Corrective Action Report Form.

The Applicant shall be formally informed of the result of the review and verification and advised if an additional full audit, an additional limited audit, or any additional documented evidence (to be confirmed during future audits) will be needed to verify effective corrections and corrective actions.

Verification of effectiveness of corrections and corrective actions can be carried out based on a review of documented information provided by the Applicant, or when appropriate through onsite verification by a member of the audit team.

Application Submission

Applicants will already be certified to a recognised Certification Body BS EN ISO 9001: 2015 Quality Management System. If services for the work carried out are supplied under MCHW SHW clauses which require certification to a relevant National Highway Sector Scheme 16, then both the Applicant and any external installers shall be registered to that NHSS (specific requirements are detailed in Stage 3 and Appendix 1).

Applicant's details and acceptance shall be provided by submitting the relevant PTS forms prior to proceeding and providing the following:

- Application Form
- Client Information Form
- Purchase Order
- Product Assessment Documentation as detailed in Stage 1 Documentation Review (see below)
- Certificate for existing Quality Management System (QMS) to BS EN ISO 9001: 2015 / Factory Production Control (FPC)
- National Highway Sector Scheme 16 requirements**

** Note: MCHW SHW Subclause 903.3 States:
"Bituminous pavements shall be laid by organisations registered to and operating in compliance with BS EN ISO 9001 'National Highways Sector Scheme 16 for the Laying of Asphalt Mixes' or equivalent listed in Appendix A and constructed using the materials specified in contract specific Appendix 7/1."

A Contract Review then commences to ensure PTS Ltd can accommodate the Applicant's requirements as detailed in PTS Process W4 Certification. The review process is ongoing throughout the certification progression.

Stage 1 - Documentation Review

The Stage 1 audit is performed by a lead auditor, following receipt of Applicant's documentation and authorisation to proceed. This audit is undertaken either by a review of the documentation supplied to PTS Ltd head office or by a visit to the Applicant's premises.

The Documentation Review includes the most recent recognised third-party BS EN ISO 9001:2015 QMS Audit Report, and FPC Audit report, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement. Copies of Registration Certificate for QMS and FPC to be provided.

Review the installers most recent third-party National Highway Sector Scheme 16 audit report, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement. Review of registration on the https://www.ukas.com/resources/category/certcheck website.

The Applicant shall confirm access to all applicable external documents in line with BS EN ISO 9001:2015 requirements.

In addition to the audit report, PTS Ltd will also require information to satisfy the QMS details as required in line with MCHW SHW the Quality Plan (details below) and Method Statement, as necessary.

If external installers are used, registration to and the most recent third-party applicable National Highways Sector Scheme 16 Audit Report comprising non-conformities (if any), close-out, observations, and any identified opportunities for improvement, is also required.
Applicants Quality Plan to satisfy the QMS details as required by BS EN ISO 9001 and incorporating the requirements of MCHW SHW Clause 104.

The Applicant shall inform PTS of any additional conditions as detailed and documented in MCHW SHW Appendix 1/24 for the Stage 3 scheme installation trial.

To ensure the Applicants product(s) are assessed in line with MCHW SHW 104.15 and 104.16 PTS will follow the points as detailed within the relevant sections of Clause 104 and Series 900 to support the assessment process. The Applicants Quality Plan shall incorporate the product(s) and applicable requirements to the works and the individual requirements of Sector Scheme 16 document for Quality Management in Highway Works to thereby demonstrate leadership engagement, competencies and continuous improvement and shall include details of the "hold points" - MCHW SHW 104.6 and the product to be assessed and production procedures:

- The Applicant shall ensure the Quality Plan includes hold points where no further work shall proceed without written approval of a designated person within the Applicant's management, who shall also be named in the Quality Plan
- The Applicant shall ensure the Quality Plan and associated quality documentation are made available to all parties involved with the works

- The Quality Plan shall include:
  - Organisation and Management structure, including organization of the contract, line command and communication links between parties involved in the contract on- and off-site. Names, roles, responsibilities and authority of principals and key personnel
  - Identification of the parts of the QMS relevant to the works
  - Supply chain management – including control and communications processes, assessment of the suppliers and subcontractors QMS and quality control capabilities, monitoring arrangements, review and acceptance of work items being undertaken by the subcontractor or supplier
    - Details and scheduling of Quality Plan required by NHSS16 or other QMS schemes
    - Details of registration to NHSS16 or any other QMS schemes
  - Document Control – controls relevant to the Works, including the control and processing of testing

results, materials and workmanship certification, quality records in accordance with MCHW SHW 104.7 The control and scheduling of all documentation as required by the specification and submitted to the Overseeing Organization as required throughout the works and the control and processing of test results that confirm the verification of the product within the design requirements for their product. This information will be used to validate that subsequent production meets the design requirements.

- Resource management – including details of relevant skills and experience of personnel involved in the works. Relevant training and/or competency assessment certificates and/or registration/skills cards for the workforce as required in NHSS16 and in accordance with SHW104.10 or scheduling of when they will be provided to the Overseeing Organization for acceptance prior to the commencement of relevant work.
- Method Statements – details information for the installation of the product(s), a copy of which shall be submitted to PTS prior to the Stage 3 witnessed on site installation of the product(s).
  The Method Statement shall contain:
  - Method statement for installation
  - Limitations in respect to weather and substrate conditions
  - General installation procedures
  - On site storage and handling of materials
  - On site quality control / assurance procedures and associated documentation

  Note: Method Statement – Please refer to Stage 3 and Appendix 1 for the specific requirements
- Hold Points as per MCHW SHW Clause 104.6

The lead auditor / technical expert shall submit their findings and recommendations in a written report. The report provides a focus for planning Stage 2 by gaining understanding of the system to determine the preparedness for the Stage 2 audit.

The interval between the Stage 1 and Stage 2 audits is determined with consideration given to the needs of the Applicant to resolve areas of concern identified during the Stage 1 audit. PTS Ltd also considers whether any revisions are required to its arrangements for the Stage 2 audit.

Stage 2 - Audit of BS EN ISO 9001:2015 Section 8.3 process 'Design and Development of Products and Services'.

The Stage 2 audit is performed at the Applicant's premises/production location by either a lead auditor with technical expertise relevant to the scheme or by a lead auditor who is assisted by a technical expert.

The Stage 2 Audit comprises:

- An audit of the process supporting the Applicants system, its technology focusing on BS EN ISO 9001:2015 Section 8.3 process 'Design and Development of Products and Services' and how that interacts with leadership, resources, and contract review
- The audit will examine and document the production process following the design implementation and associated production test data to assess for compliance of manufactured and/or installed performance.
- A review of product UKCA / UKNI / CE Marking and DoP
- PTS Ltd shall review the Applicant's documented information – processes and procedures for the planning. Inputs, controls, outputs and change management of the design and development activities,
- Its process stages, resource needs, associated responsibilities and authorities, reviews, verification and validation activities
- Development activities including statutory and regulatory requirements, standards, or codes of practice.
- Outputs of the results achieved, its monitoring and measurement of requirements, reviews / evaluation of the results.
- Verification that the outputs have met the input requirements; validation activities to ensure that the resulting product/material has met the requirements for the specified application or intended use.
- Defined the characteristics* of the product/material that are essential for their intended purpose and their safe and proper provision.

- Changes shall have been identified, reviewed, and authorized to the extent necessary to ensure that no adverse impact on conformity requirements to ensure a consistent product to confirm conformity with the production
- Quality Plan for the Factory Production Control

*National Highways confirm acceptance for the use of materials incorporating non-bituminous binders which may be considered for assessment where the physical and structural characteristics of the thin surface course system are otherwise equivalent to those of a material manufactured using traditional bituminous binder sources (November 2022).

If the content of any contract specific appendices results in the Specification of a product property being outside of the limits given for that property within the MCHW SHW 942 Specification, PTS reserve the right to consider such designs to be outside of the scope of assessment and certification.

If the product includes hazardous substances, (i.e., ones that require special precautions to be taken under the COSHH Regulations), the Applicant must supply all the relevant data. No formal assessment of the suitability of this data, in terms of the COSHH regulations, is undertaken by PTS Ltd. However, this data will always be required by PTS Ltd and its subcontractors to ensure the safe use and testing of the product in their laboratories. The Applicant's instructions for use must include all necessary data to allow the safe use of the product.

The lead auditor / technical expert shall submit their findings and recommendations as a written report. This report will provide the status of the Applicant activities in line with BS EN ISO 9001:2015 Section 8.3 'Design and Development of Products and Services'.

The time frame for resolving areas of concern that have been identified during the Stage 2 audit shall be agreed and details of the proposed corrective action submitted to PTS Ltd. Evaluation and implementation of any corrective actions shall be reviewed prior to the Stage 3 audit.

Stage 3 - Scheme/Trial Installation Method Statement Audit

The scheme installation trial for the product will be organised to demonstrate the combined practicability of the product and it is when this is undertaken in accordance with the Applicant's installation procedures.

The Applicant shall contact PTS Ltd and the relevant interested parties to arrange a mutually agreeable date for the product scheme installation trial.

The scheme installation trial will be witnessed and assessed by PTS Ltd to cover the installation procedures as defined in the Applicant's Installation Method Statement and in accordance with Appendix 1.

The Applicant shall confirm to PTS Ltd and the relevant interested parties prior to the agreed date of the scheme installation trial, details of:

- The start date(s) of the planned works
- The scheme installation site address(s) and road category/ vehicle flow by class/ speed limit.
- A site / location plan for the installation site
- Any GIS/CAD plans for the site
- Relevant Product Health and Safety data
- The Product Installation Method Statement. This comprises all information required under the Quality Plan in Stage 1, this may include substrate condition and suitability assessment, surface preparation, installation, after-care, etc.
- The competencies of the installer (National Highways Sector Scheme 16). The installer shall provide the most recent third-party NHSS16 audit comprising non-conformities (if any), close-out, observations, and any identified opportunities for improvement.

In the case of production only, the product shall only be installed by approved installers who shall be registered to National Highway Sector Scheme 16.

The installation will be witnessed and assessed by PTS's lead auditor with the technical expertise for the scheme or by a lead auditor assisted by a technical expert to cover the installation procedures as defined in the Applicant's Installation Method Statement (IMS) along with the process control and evidence of approved suppliers / contractors. The IMS shall contain substrate condition and suitability assessment, substrate preparatory works, any defects remedial, installation procedures, air/road surface temperatures and any limitations.

The Applicant must arrange for a recognised research body or testing laboratory, accredited by UKAS to ISO/IEC 17025 for the scope of required sampling and testing, to undertake validation of the system from the trial installation.

The lead auditor / technical expert shall submit their findings and recommendations in the form of a written report. Any areas of concern identified during the IMS audit shall be agreed and details of required corrective action submitted to PTS Ltd.

The technical aspects of the IMS audit, including photography, site locations and details, installers, etc. will be summarized in the form of a standalone report prepared by PTS Ltd, referenced in the Assessment Certificate and available to PTSTSP / Overseeing Organisation upon request.

Stage 4 - Review of Technical Data Relating to Design Inputs Verification and Consolidate Case Studies of the 'Scheme' / 'Trial' Product Performance Trial /Visual Condition Inspection of selected case studies

No history of use

- A 2-year product performance trial will be required if it cannot be demonstrated that the product has performed satisfactorily over a two-year period on sites representative of its intended end use (road category/ vehicle flow by class/ speed limit). The installation will be assessed as described above in Stage 3.

History of use - retrospective process

- Where an assessment certificate already exists or part approval has been sought from an overseeing organisation for a product and an installation trial has already been carried out, existing data relating to the trial will be used for assessment purposes under this stage, to ensure quality conformance of the product at its installation and any subsequent monitoring.

  Fully traceable details from the previous assessment, existing site details (including road category/ vehicle flow by class/ speed limit). where the product was used shall be submitted for review by PTS Ltd through inspections and technical information will be gathered on the product.

  The suitability of the data and evidence from other assessments or trials will be made against the requirements of this PTSPAS Guidelines and Criteria Document. The findings and associated information will be consolidated in a standalone Stage 4 Technical Report prepared by PTS Ltd and made available to PTSTSP as part of the assessment process. This Technical Report shall be referenced in the Assessment Certificate.

Acceptance of data / consolidation of technical support information

PTS Ltd will accept test data from laboratories or bodies with UKAS accreditation to ISO/IEC 17025 for specific tests, provided they are performed on samples that can be traced to the manufacturing location and the site identified. If an innovative methodology has been used, which has not been accredited, then the testing body must submit the test method procedure to PTS Ltd to ensure that the evaluation activities are managed in a manner which provides confidence in the results, and that records are available to justify the confidence.

Adopted laboratory test methods and procedures shall be as detailed in Appendix 1, with any additional relevant tests if required, as agreed with the Applicant and the PTSTSP.

Technical Reports are accepted from recognised PTS Technical Experts / Lead Auditors – with technical expertise in the area under assessment / External Technical Experts / Recognised Research Bodies.

Stage 5 - Review of Details

Reports generated from Stages 1 to 4, any comments, non-conformities and, where applicable, the correction and corrective actions taken, together with any conditions or observations, are reviewed by the lead auditor and technical expert to confirm that all evaluations stages have been carried out and a Stage 5 Report is raised.

Evidence will be required that shows compliance with the Guidelines and Criteria Document requirements, and those specified in associated standards / normative documents. A request for certification review can then be submitted to PTSPAS Management Committee.

A draft certificate shall be drawn up based on the information from the Stage 1 - 4 reports.

Stage 6 - Submission to PTS PAS Management Committee

The Stage 5 Report, relevant information, and draft certificate are submitted to the PTS PAS Management Committee, who shall conduct a review of the submitted detail for content and accuracy for all the information provided which relates to the application and evaluation of the named product assessment and certification requirements.

Certification Decision

PTS Ltd shall be solely responsible for, and shall retain authority for, all decisions relating to the assessment and certification process. The decision to initially issue a certificate in draft form to the PTSTSP shall be made by an independent PTS PAS Management Committee in accordance with PTS Process W4 Certification and W15 PTS Product Assessment and Certification as required in PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16.

Stage 7 - Draft Certificate Submission to PTSTSP

The Stage 5 Report and the draft certificate are submitted to PTSTSP in line with the PTSPAS processes. The role of PTSTSP is to provide technical oversight on the submitted evidence and to review and comment on the draft certificate to ensure compliance with the Guidelines and Criteria Document requirements and those specified in associated standards / normative documents. Interim test data may be submitted for consideration as part of or in place of the required submission. Acceptance of this data will be at the discretion of the PTSTSP.

On completion of their individual evaluations, each PTSTSP panel member will forward their responses / comments raised to PTS Ltd. This process is as specified in the PTS Technical Supervisory Panel Instructions.

Stage 8 - Consolidation of Amendments / Approval

At this stage, PTS Ltd shall collate all the information, review the details, and assess whether:

(i) Additional information or amendments are required or
(ii) The initial information as submitted is accepted, and Stage 9 commences.

The PTSTSP will review any additional / amended information submitted and confirm the information satisfies the requirements to proceed to Stage 9.

Certification Decision

At this point, final certification documentation shall be prepared as necessary by PTS Ltd.

Approval for the proposed certificate issue shall be sought from the PTSTSP following completion of all necessary requirements and acceptance of notification of the proposed publication date.

Stage 9 - Assessment Certificate Authorisation

Prior to issuing and publication, and provided that no concerns were raised with the conduct of the certificate generation by the PTSTSP, the Certificate shall be endorsed by PTS Management Committee.

Stage 10 - Certification Documentation

The formal Certification documentation issued by PTS Ltd shall convey (as applicable to the product requirements):

- Certification Authority (Name and Address)
- Product Acceptance Scheme in accordance with Manual for Contract Documents for Highway Works Specification for Highway Works (MCHW SHW) Volume 1 Sub-Clause 104.15 and 104.16*
- Product Family
- Product Name
- Specialist Group (SG) Reference and certificate number
- Date certification is granted and expiry date of certification
- Annual surveillance audit date
- Name and address of the Certificate Holder organisation
- PTS issuing signatory
- Product Application within the scope of the assessment and certification
- Key Factors Assessed
- Technical Specification
- Manufacture
- Delivery to Site and Handling
- Installation Method
- Maintenance and Repair
- Technical Data
- Requirements
- Design and Development – Planning / Inputs / Verification / Validation / Changes

- Test Data
- Bibliography
- Conditions of Certification
- Any other information required by the certification scheme

*The PTSPAS scope will be described on the published certificates as 'PTS Product Assessment and Certification as part of Product Acceptance Scheme MCHW SHW Volume 1 Clause 104.15 and 104.16'.

PTS Ltd reserves the right to amend or supplement the Certificate headings as required for the Assessment and Certification of a product at any time if deemed as required after consultation with PTSTSP.

PTS Ltd reserves the right to amend or supplement the Certificate headings as required for the Assessment and Certification of a product at any time if deemed as required after consultation with PTSTSP.

PTS Ltd reserves the right to amend or supplement the tests required for the Assessment and Certification at any time if deemed as required after consultation with PTSTSP. The cost of all further tests will be borne by the Certificate holder.

The Certificate issued will be subject to the PTS Terms of Business, which can be found on the PTS Ltd website: https://www.ptsinternational.co.uk/

Stage 11 - Publication of Certification Documentation

Assessment and Certification Certificates for "Product Acceptance Scheme in accordance with Manual for Contract Documents for Highway Works Specification for Highway Works (MCHW SHW) Volume 1 Sub-Clause 104.15 and 104.16" are issued to the Certificate Holder and published on the PTS Ltd website: https://www.ptsinternational.co.uk/

Stage 12 - Annual Surveillance Requirements / Agreement and Implementation of Validation

PTS Ltd shall carry out assessments in line with internal procedures and processes at the Certificate Holders production location(s) to ensure that the production processes quality control and product conformity remain consistent as detailed in the design specification. Assessments may be carried out remotely in times where access to locations are not permitted.

PTS Ltd shall conduct annual surveillance audits in accordance with the PTS Assessment and Certification System, the MCHW SHW, Codes of Practice, Guidelines and Criteria documents, associated specifications, standards and normative documents, PTS Ltd policies, procedures, and processes.

PTS shall ensure that the procedures and controls defined at the outset continue to apply to ensure ongoing validity of product requirements as in accordance with the Guidelines and Criteria Document, relevant standards, and normative documents. Surveillance audits cover the PTSPAS requirements as above with a product re-certification after three years.

Review of Validation Methodology to be adopted during all surveillance audits.

The Annual Assessments will follow the requirements as detailed in PTS Process W3 On Site Audit and the Visit Plan.

During the validity of any Certificate, the Certificate Holder is responsible for the quality assurance in maintaining their ISO9001:2015 registration, with control of the production at the manufacturing location(s) as declared to PTS for the named product in line with the requirements of BS EN 13108-21 and where necessary, taking account of the product having its performance declared under a UKCA / CE mark. PTS shall review the most recent third-party QMS and FPC Audit Reports, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement.

PTS Ltd shall also review the installers/contractors third-party National Highway Sector Scheme 16 audit reports, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement to ensure ongoing validation of the demonstration of fulfilment of product and installation requirements.

In addition to the above, the following will form part of the surveillance requirements:

- Organisation / production responsibility and authority / management of change
- Customer Feedback / complaints
- Quality Plan - production operations, processes, and controls
- Product quality and performance
- Component changes
- Specification changes
- Installation Method Statement - changes
- Corrective action-based changes
- Use of PTS Certification Mark / Logo

Non-conforming manufactured product and/or installed product identified during surveillance audit(s), or as a result of third-party notification, or identified as a result of the Certificate holder's own quality system, shall be discussed with the Certificate Holder to ensure that the evidence arising is accurate and that the nature of the non-conformities are fully understood and acted upon within agreed timescales and evidence of the corrective action taken shall be submitted to PTS Ltd using the Corrective Action Report Form.

The Certificate may be suspended for the period during which the Certificate Holder analyses and advises on the cause of the non-conformity and provides the appropriate corrective action to be taken to eliminate the non-conformity. Any subsequent Suspension or withdrawal of a Certificate will be displayed on the PTS website.

The assessment report as compiled by the lead auditor/ technical expert, shall describe the scope of the assessment. The body of the report will include areas of positive aspects, observations, and comments. Non-conformities and areas for correction are identified. The report also incorporates the three-year programme plan and the auditor's recommendation. Assessment reports are reviewed by the PTS PAS Management Committee for their technical content and accuracy in line with the Certificate.

The certificate holder must inform PTS Ltd without delay of matters that affect the performance of the assessed product and/or associated management system including:

- Proposed changes to the specification of the product or components,
- Changes to performance levels, scope of operations under the certified system,
- Changes to the management / production / assessment system and processes,

- Changes relating to legal, commercial organisation status or ownership, organisation, and management (key managerial, decision making or technical staff), contact address and sites,

Any certificate change requirement is considered on an individual basis, with respect to the impact of any such changes on the certification of the product.

The certificate holder agrees that changes will not be implemented until PTS Ltd have reviewed the proposed change(s) and have determined if investigation/additional assessment is required. The certificate holder will be responsible for any costs so arising.

PTS Ltd will inform the certificate holder of any relevant changes to this Guidelines and Criteria Document, the revised documentation will be published on the PTS Ltd website: https://www.ptsinternational.co.uk

Subsequent 3-year re-certification audit

The three-yearly re-certification audits incorporate the Annual Surveillance PTSPAS requirements in accordance with Appendix 1.

PTS Ltd shall be responsible for, and shall retain authority for, all its decisions relating to the assessment and certification process.

Data storage / accessibility will be retained in line with Legislation, regulatory, standard, and PTS Ltd policy, and procedure requirements.

Suspension / Withdrawal of Certificate

PTS Ltd shall suspend or withdraw the certificate if:

- The Certificate Holders management system / process / product(s) has persistently or seriously failed to meet the PTSPAS requirements as detailed in PTS Ltd Processes and PTS Ltd Terms of Business.
- The Certificate Holder does not allow surveillance or recertification assessments to be conducted at the required frequencies
- The Certificate Holder has voluntarily requested a suspension.

The Certificate Holder shall be notified in writing of such a decision in writing by a member of the PTS Ltd Certification Management team. The letter shall state whether it is intended for suspension or withdrawal, the reason(s) and any additional actions required. PTS Ltd shall allow 30 days for the Certificate Holder to respond before suspension is implemented. The Certificate Holder provide appropriate corrective action that is acceptable to PTS Ltd, accept the suspension or withdrawal or appeal the decision.

When a decision on suspension / withdrawal has been made, that suspension / withdrawal shall remain effective until the appeal process is completed, and a decision has been reached. PTSTSP shall be informed. If the Certificate Holder fails to act within the 30 days, withdrawal of the certification shall be immediate.

Suspensions are intended to be temporary. Suspensions shall be processed as withdrawals if re-certification is not completed by the next assessment date or within a 6-month period, whichever comes first.

Whilst suspended, the Certificate Holder loses the privilege of delivering the certified products / processes under the Certificate. The letter of suspension details the restrictions imposed on the Certificate Holder as a result of the suspension.

The Certificate Holder must refrain from promoting its certification status during suspension / withdrawn activities in any promotional materials, letterhead, or any other documents or media. The Certificate Holder shall also remove any displayed certificate on its premises or media format.

PTS Ltd shall make the suspension or withdrawal status of the Certificate Holder publicly accessible and in addition where other parties are involved such as regulatory bodies, those shall also be notified by PTS Ltd of the changes in the certification scope and shall take any other measures it deems appropriate during Certificate Holder suspension/ withdrawal.

Failure to resolve issues that caused the Certificate to be suspended in the established time frame shall result in withdrawal of the Certificate.

A PTS Ltd Certificate Holder may voluntarily suspend or withdraw its certificate at any time by providing written notice to PTS. Requests must clearly state the reason. Requests will normally be processed within 10 days. Any fees/ monies due shall be payable to PTS at this time.

PTS Ltd shall take necessary actions and modifications to formal certificate documents, public information, authorisations for use of marks etc., to ensure the suspension / withdrawal is clearly communicated and details clearly specified in its documentation and public information.

An immediate suspension of the Certificate Holder's Certificate shall be imposed by PTS Ltd when there is evidence to support that one or any number of critical non-conformances have been found or the Certificate Holder has declined any additional surveillance by PTS Ltd. The Certificate Holder can appeal the decision for an immediate suspension according to the appeal process, available on request.

Bibliography
BS EN ISO/IEC 17021-1:2015 Conformity assessment. Requirements for bodies providing audit and certification of management systems. Requirements
BS EN ISO 17025:2005 General requirements for the competence of testing and calibration laboratories BS EN ISO 17025:2017 General requirements for the competence of testing and calibration laboratories
BS EN ISO/IEC 17065:2012 Conformity assessment – Requirements for bodies certifying products, processes, and services.
BS EN ISO/IEC 17067:2013 Conformity assessment – fundamentals of product certification and guidelines for product certification schemes
BS EN ISO/IEC 9001:2015 Quality Management System Requirements
BS EN 933-3:2012 Tests for geometrical properties of aggregates. Determination of particle shape. Flakiness index
BS 598-110:1998 Sampling and examination of bituminous mixtures for roads and other paved areas. Methods of test for the determination of wheel-tracking rate and depth
BS EN 1097-2:2020 Tests for mechanical and physical properties of aggregates. Methods for the determination of resistance to fragmentation
BS EN 1097-8:2020 Tests for mechanical and physical properties of aggregates. Determination of the polished stone value
BS EN 12697-8:2018 Bituminous mixtures - Test methods Part 8: Determination of void characteristics of bituminous specimens
BS EN 12697-12:2018 Bituminous mixtures. Test methods. Determination of the water sensitivity of bituminous specimens
BS EN 12697-13:2017 Bituminous mixtures. Test methods – Temperature Measurement
BS EN 12697-22:2020 Bituminous mixtures. Test methods. Wheel tracking
BS EN 13036-1:2010 Road and airfield surface characteristics. Test methods. Measurement of pavement surface macrotexture depth using a volumetric patch technique.
BS EN 13043:2002 Aggregates for bituminous mixtures and surface treatments for roads, airfields, and other trafficked areas
BS EN 13108-1:2006 Bituminous Mixtures. Material Specifications. Asphalt Concrete
BS EN 13108-2:2006 Bituminous Mixtures. Material Specifications. Asphalt Concrete for Very Thin Layers BS EN 13108-5:2006 Bituminous Mixtures. Material Specifications. Stone Mastic Asphalt
BS EN 13108-5:2016 Bituminous Mixtures. Material specifications. Stone Mastic Asphalt

Bibliography
BS EN 13108-20:2016 Bituminous Mixtures. Material Specifications. Type Testing
BS EN 13108-21:2016 Bituminous Mixtures. Material Specifications. Factory Production Control
BS594987:2015 Asphalt for Roads and other Paved Areas Specification for Transport, Laying, Compaction, and Product Type Testing Protocols
Design Manual for Roads and Bridges (DMRB) CD236 Surface Course Materials for Construction, Rev 4
Manual of Contract Documents for Highways Works (MCHW) Volume 1, Series 100, Preliminaries, April 2022
Manual of Contract Documents for Highways Works (MCHW) Volume 1, Specification for Highway Works, July 2021
Manual of Contract Documents for Highways Works (MCHW), Volume 2, Notes for Guidance on the Specification for Highway Works, May 2018
National Highway Sector Scheme Document 16 Particular Requirements for the Application of ISO 9001:2015 for Quality Management of the Laying of Asphalt Mixes, December 2021
PD 6691:2015+A1:2016. Guidance on the use of BS EN 13108, Bituminous Mixtures. Material Specifications.
TRL PPR575 Protocol for the calculation of whole life cycle greenhouse gas emissions generated by asphalt, 2013
TRL TRL674 Durability of thin asphalt surfacing systems. Part 4: Final report after nine years' monitoring. 2010.
PTS Technical Supervisory Panel Instructions V4 PTS Procedure - Audit Plan
W3 PTS Process – On Site Audit
W15 PTS Product Assessment and Certification as part of Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16

Appendix 1 – Guidelines and Criteria Document Requirements (Thin Surface Course Systems)

PTS PRODUCT ASSESSMENT AND CERTIFICATION (PTSPAS)

AS PART OF PRODUCT ACCEPTANCE SCHEME
MCHW SHW VOLUME 1 CLAUSE 104.15 AND 104.16

PTS SG 942 Guidelines and Criteria Requirements Thin Surface Course Systems (England and Northern Ireland only*)

PTS Ltd in consultation with PTSTSP, reserves the right to amend or supplement the tests required for PTSPAS Assessment and Certification at any time if required. The cost of all further tests will be borne by the applicant.

Note: If the content of any contract specific appendices results in the specification of a product property being outside of the limits given for that property within the MCHW SHW 942 Specification, PTS reserve the right to consider such designs to be outside of the scope of assessment and certification.

PTS refer to all current versions of standards, CoP, normative documents at the time of assessment(s).

Relevant Documents	
Specification	Manual of Contract Documents for Highway Works Clause 942, July 2021, Thin Surface Course Systems
Notes for Guidance	Manual of Contract Documents for Highway Works Clause 942, May 2018, Thin Surface Course Systems
Design Manual for Roads and Bridges	CD 236 Surface Course Materials for Construction, Rev 4
BS EN 13108-1, BS EN 13108-2 or BS EN 13108-5	Product mixture family Bituminous Mixtures. Material Specifications. Asphalt Concrete Bituminous Mixtures. Material Specifications. Asphalt Concrete for Very Thin Layers Bituminous Mixtures. Material specifications. Stone Mastic Asphalt
BS594987	BS594987:2015 Asphalt for roads and other paved areas Specification for transport, laying, compaction, and product type testing protocols
NHSS16	National Highway Sector Scheme Document 16 Particular Requirements for the Application of ISO 9001:2015 for Quality Management of the Laying of Asphalt Mixes, December 2021

*This Guidelines and Criteria Document expressly excludes:

(i) Clause 942TS materials, Stone Mastic Asphalt Surface Course as used in Scotland (TS2010 as described in "Surface Course Specification & Guidance", Transport Scotland refers)

(ii) Clause 942WG materials, Stone Mastic Asphalt Surface Course as used in Wales (Welsh Government Procedure and Advice Guidance (PAG) 112/20 refers)

Application Submission	
	• Application Form, • Client Information Form • Purchase Order • Product Assessment Documentation as detailed in Stage 1 Documentation Review (see below) • Certificate for existing Quality Management System (QMS) to BS EN ISO 9001: 2015 / Factory Production Control (FPC) / National Highway Sector Scheme (NHSS) requirements

Stage 1 Documentation Review - BS EN ISO 9001: 2015 / NHSS	
Quality Management System (QMS	Review of Applicants most recent third-party BS EN ISO 9001:2015 QMS Audit Report, and FPC Audit Report, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement. demonstration of leadership engagement, competencies, and continuous improvement. BS EN ISO 9001:2015 QMS and FPC Certificates
Sub Clause 903.2	Bituminous pavements shall be laid by organisations registered to and operating in compliance with BS EN ISO 9001 'National Highways Sector Scheme 16 for the Laying of Asphalt Mixes' or equivalent listed The installers most recent third-party applicable National Highways Sector Scheme Audit Report comprising non-conformities (if any), close-out, observations, and any identified opportunities for improvement. Registration of NHSS Scheme on The UKAS CertCheck website
Sub-Clause 104	Applicants Quality Plan to satisfy the QMS details as required by BS EN ISO 9001 and incorporating the requirements of MCHW SHW Clause 104. The Applicant shall inform PTS of any additional conditions as detailed and in documented in MCHW SHW Appendix 1/24 for the Stage 3 scheme installation trial. – The Applicant shall ensure the Quality Plan includes hold points where no further work shall proceed without written approval of a designated person within the Applicant's management, who shall also be named in the Quality Plan – The Applicant shall ensure the Quality Plan and associated quality documentation are made available to all parties involved with the works – The Quality Plan shall include: • Organisation and Management structure, including organization of the contract, line command and communication links between parties involved in the contract on and off site. Names, roles, responsibilities and authority of principals and key personnel • Identification of the parts of the QMS relevant to the works • Supply chain management – including control and communications processes, assessment of the suppliers and subcontractors QMS and quality control capabilities, monitoring arrangements, review and acceptance of work items being undertaken by the subcontractor or supplier • Details and scheduling of Quality Plan required by NHSS16 and any other QMS schemes • Details of registration to NHSS16 and any other QMS schemes • Document Control – controls relevant to the Works, including the control and processing of testing results, materials and workmanship certification, quality records in

Stage 1 Documentation Review - BS EN ISO 9001: 2015 / NHSS	
	accordance with SHW 104.7 • The control and scheduling of all documentation as required by the Specification and submitted to the Overseeing Organization as required throughout the works and the control and processing of test results that confirm the verification of the product within the design requirements for their product. This information will be used to validate that subsequent production meets the design requirements. • Resource management – including details of relevant skills and experience of personnel involved in the works. • Relevant training and/or competency assessment certificates and/or registration/skills cards for the workforce as required in NHSS16 in accordance with SHW 104.10 or scheduling of when they will be provided to the Overseeing Organization for acceptance prior to the commencement of relevant work. In the case of production only – the product shall be designed to be installed by a competent installer experienced with that type of product. • Method Statements – details information for the installation of the product(s), a copy of which shall be submitted PTS prior to the Stage 3 witnessed on site installation of the product(s). The Method Statement shall contain: o Method statement for installation o Limitations in respect to weather and substrate conditions o General installation procedures o On site storage and handling of materials o On site quality control / assurance procedures and associated documentation Note: Method Statement – Please refer to Stage 3 for the specific requirements • Hold Points as per MCHW SHW Clause 104.6

Stage 2 BS EN ISO 9001: 2015 SECTION 8.3 – Design and Development	
Planning Evidence	Review of evidence supporting the technology focusing on BS EN ISO 9001:2015 Section 8.3 process 'Design and Development of Products and Services' and how that interacts with leadership, resources, and contract review to ensure that the design and development was a planned process. This means an objective development of a project plan, identification of resources required and a close out report detailing stages including verification, validation and change management. The audit will examine and document the production process following the design implementation and associated production test data to assess for compliance of manufactured and/or installed performance. • A review of product UKCA / CE Marking and DoP (if applicable) • The functional and performance requirements, information derived from previous similar design and development activities including statutory and regulatory requirements, standards, or codes of practice. Outputs of the results achieved, its monitoring and measurement of requirements, reviews / evaluation of the results.

	• Defined the characteristics* of the product/material that are essential for their intended purpose and their safe and proper provision. *National Highways confirm acceptance for the use of materials incorporating non-bituminous binders which may be considered for assessment where the physical and structural characteristics of the thin surface course system are otherwise equivalent to those of a material manufactured using traditional bituminous binder sources (November 2022). • Changes shall have been identified, reviewed, and authorized to the extent necessary to ensure that no adverse impact on conformity requirements to ensure a consistent product to confirm conformity with the production quality plan for the Factory production Control. • If the content of any contract specific appendices results in the Specification of a product property being outside of the limits given for that property within the MCHW SHW 942 Specification, PTS reserve the right to consider such designs to be outside of the scope of assessment and certification. • If the product includes hazardous substances, (i.e., ones that require special precautions to be taken under the COSHH Regulations), the Applicant must supply all the relevant data. No formal assessment of the suitability of this data, in terms of the COSHH regulations, is undertaken by PTS Ltd. However, this data will always be required by PTS Ltd and its subcontractors to ensure the safe use and testing of the product in their laboratories. The Applicant's instructions for use must include all necessary data to allow the safe use of the product. • The lead auditor / technical expert shall submit their findings and recommendations as a written report. This report will provide the status of the Applicant activities in line with BS EN ISO 9001:2015 Section 8.3 'Design and Development of Products and Services'. • The time frame for resolving areas of concern that have been identified during the Stage 2 audit shall be agreed and details of the proposed corrective action submitted to PTS Ltd. Evaluation and implementation of any corrective actions shall be reviewed prior to the Stage 3 audit.
Design inputs Sub Clause 901, 942.5-11	Material to BS EN 13108-1, 2, 5 Use of Non-bituminous binders: National Highways confirm acceptance for the use of materials incorporating non-bituminous binders which may be considered for assessment where the physical and structural characteristics of the thin surface course system are otherwise equivalent to those of a material manufactured using traditional bituminous binder sources (November 2022). Coarse aggregate – in compliance with Clause 901, 942.6 and BS EN 13043 and DoP to be submit- ted to the Overseeing Organisation The resistance to polishing and abrasion, PSV and AAV, (BS EN 1097-8) shall be as specified in contract specific Appendix 7/1. The aggregate resistance to fragmentation (BS EN 1097-2) and flakiness (BS EN 933-3) Index shall be as follows:

	(i) Resistance to fragmentation: Los Angeles Coefficient (LA) – not greater than LA30; (ii) Flakiness Index (FI) – not greater than FI20. The maximum aggregate size shall be as given in Clause 942 Table 9/9
Sub Clause 942.7	The minimum target design binder contents shall be in accordance with Table 9/10 and contract specific Appendix 7/1.
Sub Clauses 942.8-942.11	Laboratory mix design The resistance to permanent deformation (BS EN 12697-22 / BS 598-110) shall be as specified in contract specific Appendix 7/1. The resistance to permanent deformation of mixtures conforming to BS EN 13108 Parts 1 and 5 shall be in accordance with the appropriate class selected from Table B.4 or D.2 respectively of PD 6691. 9 The water sensitivity (BS EN 12697-12) shall be as specified in contract specific Appendix 7/1. The water sensitivity of mixtures conforming with BS EN 13108 Parts 1, 2 and 5 shall conform to, at least, category ITSRmin70. Where required in contract specific Appendix 7/1 the design void content (BS EN 12697-8) shall be Vmin1 to Vmax5%. Contract compliance testing of the mixture shall be carried out as required in contract specific Appendix 1/56 and samples supplied as detailed in contract specific Appendix 1/6.
Warm Mix Asphalts (WMA)	
Sub-Clause 942.44	Warm Mix Asphalt (WMA): Mixtures to be produced as WMAs shall comply with the requirements of this Clause and Clause 908.
Sub-Clause 908.2	Mixtures produced as Warm Mix Asphalts shall fulfil the requirements given in Clause 901 and Clause 903 and in contract specific Appendix 7/1.
Sub-Clause 908.5	The maximum production temperatures, when measured in accordance with BS EN 12697-13, shall be in accordance with Table 9/1A and the material's Declaration of Performance and not compromise the efficacy of the binder, additives or process.

Binder grade	**Maximum Temperature (°C) (at any stage)**
Paving grade conforming to BS EN 12591	150
Hard paving grade conforming to BS EN 13924-1	160
Polymer Modified Binder conforming to BS EN 14023	Documented and declared by the producer

Stage 2 BS EN ISO 9001: 2015 SECTION 8.3 – Design and Development	
Sub-Clause 908.6	Warm Mix Asphalt (WMA): The water sensitivity (BS EN 12697-12, Test Method A) shall be as specified in contract specific Appendix 7/1. The water sensitivity of mixtures conforming with BS EN 13108 Parts 1, 2 and 5 shall conform to, at least, category ITSRmin80.
Sub-Clause 908.7	Designated WMA mixtures in Table 9/1B which include 2% hydrated lime filler aggregate are deemed to result in mixtures which satisfy water sensitivity requirements and testing is not required. Hydrated lime filler shall be $Ca(OH)_2$ in the form of hydrated lime, type CL 90-S.
Sub-Clause 908.8	WMA Installation: Mixtures produced as WMA shall comply with the requirements in Clause 903, contract specific Appendix 7/1, Table 9/1C and the producer's recommendations and not compromise the efficacy of the WMA binder, additives or process.
Sub-Clauses 908.9-12	WMA Carbon Footprint (Reduction) Measurement shall be reported for CO2 emissions for asphalt using the calculation tool detailed at: https:// www.gov.uk/government/publications/carbon-tool. The carbon footprint analysis shall be conducted in accordance with TRL PPR 575 – Protocol for the calculation of whole life cycle greenhouse gas emissions generated by asphalt.
Sub-Clauses 908.9-12	The carbon footprint shall be stated in $kgCO_2e$ per tonne of the warm mixture and broken down into totals for Steps 1-3, Step 4 and Step 5.

Summary of the Stage 3 and Stage 4 audit processes	
Verification	SIPT (details below) Simulative testing methodology may be considered
Validation	Covered in SIPT (details below) Texture Retention Durability
Change management	Competent individual identified and authorised to manage change precipitated by the following causes: Components changes Installation Method Statement changes Corrective Action based changes Specification changes

Stage 3 Scheme / Trial Installation Method Statement Audit	
	The Applicant shall confirm to PTS Ltd (and the relevant interested parties) prior to the agreed date of the scheme installation trial, details of: • The start date(s) of the planned works • The scheme installation site address(es), road category/ vehicle flow by class/ speed limit. • A site / location plan for the installation site • Any GIS/CAD plans for the site • Relevant Product Health and Safety data • The Product Installation Method Statement. This comprises all information required under the Quality Plan in Stage 1, this may include substrate condition and suitability assessment, sur- face preparation, installation, after-care, etc. • The competencies of the installer (National Highways Sector Scheme 16). The installer shall provide the most recent third-party relevant Sector Scheme audit comprising non-conformities (if any), close-out, observations, and any identified opportunities for improvement. Or provide evidence of specific training received in the use and installation with the type of product.
	The installation, in accordance with NHSS 16, will be witnessed and assessed by PTS's lead auditor with the technical expertise for the scheme or by a lead auditor assisted by a technical expert to cover the installation procedures as defined in the Applicant's Installation Method Statement (IMS) along with the process control and evidence of approved suppliers / contractors. The IMS shall contain substrate condition and suitability assessment, substrate preparatory works, any defects remedial, installation procedures, air/road surface temperatures, maximum production temperatures, minimum rolling temperatures and any limitations.
	The Applicant must arrange for a UKAS accredited testing laboratory to ISO/IEC 17025 to undertake validation, this may include taking samples for laboratory testing from the installation.
	The lead auditor / technical expert shall submit their findings and recommendations in the form of a written report. Any areas of concern identified during the IMS audit shall be agreed and details of required corrective action submitted to PTS Ltd.
	The technical aspects of the IMS audit, including photography, site locations and details, installers, etc. will be summarized in the form of a standalone report prepared by PTS Ltd, referenced in the Assessment Certificate and available to PTSTSP / Overseeing Organisation upon request.
Sub Clauses 942.12-13, 942.26	The Contractor shall provide an Installation Method Statement. It shall include the requirements as described in sub-Clause 942.26. All installation instructions relevant to the system being used shall meet the requirements of Clause 942, Clause 903 and Clause 908 as required.
	The design thickness of the thin surface course system shall be as specified in the contract specific Appendix 7/1 within the minimum and maximum design thickness permitted in Table 9/11.

Stage 3 Scheme / Trial Installation Method Statement Audit	
Sub Clause 903	Unless otherwise specified in the other Clauses in the 900 Series or in contract specific Appendix 7/1, the General requirements for the placing and compaction of bituminous mixture (which are complementary and additional to the requirements of BS 594987) shall meet the requirements of Clause 903.
Sub Clause 903.2	Bituminous pavements shall be laid by organisations registered to and operating in compliance with BS EN ISO 9001 'National Highways Sector Scheme 16 for the Laying of Asphalt Mixes' or equivalent listed in Appendix A and constructed using the materials specified in contract specific Appendix 7/1.
Sub-Clause 908.2	WMA Mixture Production: Mixtures produced as Warm Mix Asphalts shall also fulfil the requirements given in Clause 901 and Clause 903 and contract specific Appendix 7/1.
Sub-Clause 908.8	WMA Mixture Installation: Mixtures produced as WMA shall comply with the requirements in Clause 903, contract specific Appendix 7/1, Table 9/1C and the producer's recommendations and not compromise the efficacy of the WMA binder, additives or process.
Sub Clause 942.14-16	Preparation works shall be carried out in accordance with the Installation Method Statement or in contract specific Appendix 7/1, Clause 907, NHSS16 and BS594987
Sub Clause 942.17	Bond or Tack coats shall be applied as required in the Installation Method Statement. Unless otherwise stated in the Installation Method Statement it shall also comply with Clause 920 and BS 594987.
Sub Clause 942.18	Transportation of the product shall be in accordance with the Installation Method Statement, Clause 903 and BS 594987.
Sub Clause 942.19	The initial performance requirements for un-trafficked surface macrotexture depth of the product shall be measured in accordance with BS EN 13036-1. Unless otherwise stated in contract specific Appendix 7/1. The initial macrotexture shall comply with the relevant section of Table 9/12 or Table 9/13
Sub Clause 942.21	The bond strength between the installed product and its substrate shall be ≥ 400 kPa, measured in accordance with Clause 951.
Sub Clause 942.22	Determination of road/tyre noise characteristics shall be as required in contract specific Appendix 7/1.
Sub Clauses 942.23-29	Any SIPT shall meet the performance requirements as specified in the contract and the SIPT Method statement. The area of surfacing for the SIPT shall be a minimum of 200 metres in length and 3.5 metres in width.
Sub Clauses 942.30-31	Installed performance characteristics shall be determined at the opening to traffic for visual inspection (as described in TRL Report 674) and surface macrotexture depth (BS EN 13036-1)
Sub Clause 942.32	Torque Bond strength between the product laid and its substrate shall be established in accordance with Clause 951. This shall be undertaken between 28 and 56 days after installation (≥400 kPa)

<table>
<tr><th colspan="2">Stage 3
Scheme / Trial Installation Method Statement Audit</th></tr>
<tr><td>Sub Clause
942.33</td><td>The void content (BS EN 12697-8) (voluntary assessment and declaration) of the proposed mixture, when evaluated, for the SIPT shall be $V_{min}2$ to $V_{max}6\%$ from the average of six cores. If required, this shall be carried out between zero and 24 months after opening to traffic.</td></tr>
<tr><td>Sub Clauses
942.34-43</td><td>Determination of road/tyre noise characteristics shall be as required in contract specific Appendix 7/1. The assessment and measurement of noise characteristics shall be reported according to Table 9/17.</td></tr>
<tr><td>Sub Clauses
942.30-31
942.19
942.21
942.33</td><td>Installation Test / Performance Requirements (Initial Requirements):
<table>
<tr><th>Characteristic</th><th>Performance Requirements</th><th>Time(s) at which the performance characteristic shall be determined or measured</th></tr>
<tr><td>Visual Inspection</td><td>Sub-Clauses 30 & 31
Table 9/15
Good or excellent</td><td>At opening to traffic</td></tr>
<tr><td>Surface macrotexture depth (BS EN 13036-1)</td><td>Sub-Clause 19
Appendix 7/1 and
Table 9/12 or 9/13</td><td>Untrafficked</td></tr>
<tr><td>Torque Bond</td><td>Sub-Clause 21
Sub-Clause 951
Table 9/15
≥400kPa</td><td>28-56 days after installation</td></tr>
<tr><td>Void Content (Voluntary assessment and declaration) (BS EN 1297-8)</td><td>Sub-Clause 33
Table 9/15</td><td>Between 0 and 24 months after opening to traffic.</td></tr>
</table></td></tr>
</table>

Stage 4 Review of Technical Data Relating to Design Inputs Verification and Consolidation of Case Studies of the Scheme / Trial	
	Product Performance Scheme/Trial Visual Condition Inspection of selected case studies: Review of Technical Data Relating to Design Inputs Verification and Consolidate Case Studies of the 'Scheme' / 'Trial' Product Performance Trial /Visual Condition Inspection of selected case studies No history of use • A 2-year product performance trial will be required if it cannot be demonstrated that the product has performed satisfactorily over a two-year period on sites representative of its intended end use. The installation will be assessed as described above in Stage 3. History of use - retrospective process • Where an assessment certificate already exists or part approval has been sought from an overseeing organisation for a product and an installation trial has already been carried out, existing data relating to the trial (including road category/ vehicle flow by class/ speed limit), may be used for assessment purposes under this stage. The suitability of the data and evidence from other assessments or trials will be made against the requirements of this PTSPAS Guidelines and Criteria Document. The findings and associated information will be consolidated in a standalone Stage 4 Technical Report prepared by PTS Ltd and submitted to PTSTSP as part of the assessment process. This Technical Report shall be referenced in the Assessment Certificate.
	Acceptance of data / consolidation of technical support information PTS Ltd will accept test data from laboratories with UKAS testing accreditation to ISO/IEC 17025 or a PTS Ltd approved laboratory for the specific tests, provided they are performed on samples that can be traced to the manufacturing location and the site identified. If a PTS Ltd approved laboratory is employed, they will be required to submit a copy of their test method procedure to PTS Ltd to ensure that the evaluation activities are managed in a manner which provides confidence in the results, and that records are available to justify the confidence. Any additional relevant tests if required are to be as agreed with the Applicant and the PTSTSP. Technical Reports are accepted from recognised PTS Technical Experts / Lead Auditors – with technical expertise in the area under assessment / External Technical Experts / Recognised Research bodies.

<table>
<tr><th colspan="2">Stage 4
Review of Technical Data Relating to Design Inputs Verification and Consolidation of Case Studies of the Scheme / Trial</th></tr>
<tr><td>Sub Clauses 942.30-31</td><td>Performance Requirements (12 – 24 Months after Scheme / Trial Installation):
<table>
<tr><th>Characteristic</th><th>Performance Requirements</th><th>Time(s) at which the performance characteristic shall be determined or measured</th></tr>
<tr><td>Visual Inspection as defined in sub-clause 31</td><td>Good or Excellent</td><td>12 months after opening to traffic.</td></tr>
<tr><td>Surface macrotexture depth (BS EN 13036-1)</td><td>Appendix 7/1 and Table 9/14</td><td>12 months after opening to traffic.</td></tr>
<tr><td>Void Content (Voluntary assessment and declaration) (BS EN 1297-8)</td><td>Sub-Clause 33 V_{min}2% to V_{max}6% from the average of 6 cores</td><td>Between 0 and 24 months after opening to traffic.</td></tr>
<tr><td>Road/Tyre Noise Level sub-clause 34 (Optional)</td><td>Appendix 7/1 and Table 9/17</td><td>Between 12 & 24 month after opening to Traffic</td></tr>
<tr><td>Surface macrotexture depth (BS EN 13036-1)</td><td>Sub-clause 40</td><td>Between 12 & 24 month at the time of the noise assessment macrotexture shall be measured</td></tr>
<tr><td>Visual Inspection as defined in sub-Clause 31</td><td>Good or Excellent</td><td>24 months after opening to traffic.</td></tr>
<tr><td>Surface macrotexture depth (BS EN 13036-1)</td><td>Appendix 7/1 and Table 9/14</td><td>24 months after opening to traffic.</td></tr>
</table></td></tr>
<tr><td>TRL 674</td><td>Onsite visual assessment of installed product

Visual Inspection – any defects shall be recorded for;
• Fatting Up
• Chipping loss / loss of aggregate
• Cracking
• Delamination from substrate
• Fretting
• Stripping
• Variability with traffic intensity, marked transverse differences caused by variations in traffic intensity between lanes

Variable with random variations from point to point within the section only, not “traffic-laning” or obvious variations from load to load.</td></tr>
</table>

<table>
<tr><th colspan="2">Stage 4
Review of Technical Data Relating to Design Inputs Verification and Consolidation of Case Studies of the Scheme / Trial</th></tr>
<tr><td>Sub-Clause 942.31</td><td>The assessment of defects shall be summarized as a performance band from MCHW SHW Clause 942 Table 9/16:

<table><tr><td>Performance Band</td><td>Description</td></tr><tr><td>Excellent</td><td>No discernible fault</td></tr><tr><td>Good</td><td>No significant fault</td></tr><tr><td>Moderate</td><td>Several defects but would usually be just acceptable</td></tr><tr><td>Acceptable</td><td>Some defects but insufficient for serious problem</td></tr><tr><td>Suspect</td><td>Seriously defective but still serviceable in the short term</td></tr><tr><td>Poor</td><td>Requires remedial treatment</td></tr><tr><td>Bad</td><td>Requires immediate remedial treatment</td></tr></table></td></tr>
<tr><td>Sub Clause 942.20</td><td>Surface Macrotexture Depth – BS EN 13036-1 in accordance with Appendix 7/1 and MCHW SHW Clause 942 Table 9/14:

<table><tr><td>Surfacing Type</td><td>Average texture depth per 1,000m section, mm*</td></tr><tr><td>Systems with an upper (D) aggregate size of 14mm laid on motorway trunk and high-speed A roads</td><td>0.9</td></tr><tr><td>Systems with an upper (D) aggregate size of 10mm laid on motorway trunk and high-speed A roads</td><td>0.8</td></tr><tr><td>Systems with an upper (D) aggregate size of 6mm laid on motorway trunk and high-speed A roads</td><td>0.7 **</td></tr><tr><td>Systems with all aggregate sizes laid on non-trunk low speed A, and all B, C and U classification roads</td><td>0.6</td></tr></table>* or the complete carriageway lane where this is less than 1,000 m.

** verification of high-speed friction performance required</td></tr>
</table>

Stage 4 Review of Technical Data Relating to Design Inputs Verification and Consolidation of Case Studies of the Scheme / Trial	
Sub Clause 942.34-43	Road/Tyre Noise Level (if applicable) See MCHW SHW Clause 942 Table 9/17:

Level	Equivalence to Traditional Surfacing Materials	Road Surface Influence RSI
3	Very quiet surfacing material	-3.5 dB(A)
2	Quieter than HRA surfacing materials	-2.5 dB(A)
1	Equivalent to HRA surfacing materials	-0.5 dB(A)
0	Noisier than HRA Surfacing Materials	+1.2 dB(A)
NR	No requirement	No requirement

Stage 5 - Review of Details	
	PTSPAS Assessment personnel (auditors/technical experts) shall review the Reports as generated from Stages 1-4 to ensure all applicable requirements are complete and compliant with the Guidelines and Criteria Document requirements, and those specified in associated standards / normative documents. A Stage 5 Report is raised. A draft interim or full certificate shall be drawn up based on the relevant information from the Reports. The format of the draft certificate shall be as per Stage 10 – Certification Documentation A request for certification review is submitted to PTSPAS Management Committee.

Stage 6 - Submission to PTS PAS Management Committee	
	The Stage 5 Report, relevant information, and draft certificate are submitted to the PTSPAS Management Committee, who shall conduct a review of the submitted detail for content and accuracy for all the information provided which relates to the application and evaluation of the named product assessment and certification requirements. The PTSPAS Management Committee shall in accordance with this Guidelines and Criteria Document, PTS internal processes: Process W4 Certification and W15 PTS Product Assessment and Certification as required in PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16 review all the information and make the decision on acceptance and give authorisation to initially issue a certificate in draft form to the PTSTSP. 7 days' notice is given to the PTSTSP to advise of intention to submit information.

Stage 7 - Draft Certificate Submission to PTSTSP	
	The Stage 5 Report and draft certificate are submitted to PTSTSP in line with the process W15 PTS Product Assessment and Certification as required in PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16. The role of PTSTSP is to provide technical oversight on the submitted evidence and to review and comment on the draft certificate to ensure compliance with the Guidelines and Criteria Document requirements and those specified in associated standards / normative documents. The PTSTSP have 3 working weeks to conduct the review. On completion of their individual evaluations, each PTSTSP panel member will either forwards their response / comments to PTS Ltd (for addressing prior to publication of the certificate) or express their consent by default for publication to proceed, if they choose not to respond with any comment(s). This process is as specified in the PTS Technical Supervisory Panel Instructions.

Stage 8 - Consolidation of Amendments / Approval	
	At this stage, PTS Ltd shall collate all the information, review the details, and assess whether: (i) Additional information or amendments are required or (ii) The initial information as submitted is accepted, and Stage 9 commences. The PTSTSP will review any additional / amended information submitted and confirm the information satisfies the requirements to proceed to Stage 9. All additional information will be submitted to the PTSTSP for review. The PTSTSP have a further 3 working weeks to conduct this review.
	On completion of their individual evaluations, each PTSTSP panel member will either forward their response / comments to PTS Ltd (for addressing prior to publication of the certificate) or express their consent by default for publication to proceed, if they choose not to respond with any comment(s) in line with PTS Technical Supervisory Panel Instructions. This will be their Certification Decision Approval for the proposed certificate issue shall be sought from the PTSTSP following completion of all necessary requirements and acceptance of notification of the proposed publication date. PTS Ltd shall prepare the final certification documentation, as necessary.

Stage 9 - Assessment Certificate Authorisation	
	Prior to issuing and publication, and provided that no concerns were raised with the conduct of the certificate generation by the PTSTSP, the Certificate shall be endorsed by the PTS Management Committee.

Stage 10 - Certification Documentation	
	The formal Certification documentation issued by PTS Ltd shall convey (as applicable to the product requirements): • Certification Authority (Name and Address)

Stage 10 - Certification Documentation	
	• Product Acceptance Scheme in accordance with Manual for Contract Documents for Highway Works Specification for Highway Works (MCHW SHW) Volume 1 Sub-Clause 104.15 and 104.16* • Product Name • Product Family • Specialist Group (SG) Reference and certificate number • Use of Non-bituminous binder (if applicable) • Date certification is granted and expiry date of certification • Name and address of the Certificate Holder organisation • PTS issuing signature • Product Application within the scope of the assessment and certification • Material's designation • Assessment of installed properties • Assessment of in-service properties • Installation Method • Technical Data • Design and Development – Planning / Inputs / Verification / Validation / Changes • Test Data • Bibliography • Conditions of Certification • Any other information required by the certification scheme *The PTSPAS scope will be described on the published certificates as 'PTS Product Assessment and Certification as part of Product Acceptance Scheme MCHW SHW Volume 1 Clause 104.15 and 104.16'. PTS Ltd reserves the right to amend or supplement the Certificate headings as required for the Assessment and Certification of a product at any time if deemed as required after consultation with PTSTSP. The Certificate issued will be subject to the PTS Terms of Business, which can be found on the PTS Ltd website: https://www.ptsinternational.co.uk/

Stage 11- Publication of Certification Documentation	
	Assessment and Certification Certificates for "Product Acceptance Scheme in accordance with Manual for Contract Documents for Highway Works Specification for Highway Works (MCHW SHW) Volume 1 Sub-Clause 104.15 and 104.16" are issued to the Certificate Holder and published on the PTS Ltd website: https://www.ptsinternational.co.uk/

Stage 12 Annual Surveillance Requirements	
Annual Surveillance Requirements/ Agreement and Implementation	PTS Ltd shall carry out assessments in line with internal procedures and processes at: The Certificate Holders production location(s) to ensure that the production processes quality control and product conformity remain consistent as detailed in the Design Specification to ensure ongoing validity of product requirements as in accordance with this Guidelines and

<table>
<tr><th colspan="2">Stage 12 Annual Surveillance Requirements</th></tr>
<tr><td>of Validation</td><td>Criteria Document, MCHW SHW, Codes of Practice, associated Specifications, standards and normative documents, PTS Ltd policies, procedures, and processes.

Surveillance audits cover the PTSPAS requirements as above with a 3-year re-certification. If at any surveillance stage the Guidelines and Criteria requirements are not met, non-conformities may be raised, additional assessment requirements, possible suspension of the certificate or withdrawal.</td></tr>
<tr><td></td><td>Certificate Holders Production location(s):

• Review of Certificate Holders most recent third-party QMS and FPC Audit Reports, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement.
• Organisation / production responsibility and authority / management of change
• Customer Feedback / complaints
• Quality Plan - production operations, processes, and controls
• Product quality and performance
• Component changes
• Specification changes
• Installation Method Statement - changes
• Corrective action-based changes
• Use of PTS Certification Mark / Logo</td></tr>
<tr><td>NG942.5</td><td>Installers NHSS 16 Registration:

The UK National Highways Sector Scheme 16 provides an interpretation of BS EN ISO 9001 Quality Management Scheme requirements in relation to asphalt laying and registration is required for the laying of asphalt mixes in Clause 901.

• Review the installers third-party National Highway Sector Scheme 16 audit reports, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement.</td></tr>
<tr><td>Annual Surveillance Requirements / Agreement and Implementation of Validation</td><td>Surveillance 1 (12 Months after Certificate issue, 36 months after scheme / trial installation)

<table>
<tr><th>Characteristic</th><th>Performance Requirements</th><th>Time(s) at which the performance characteristic shall be determined or measured</th></tr>
<tr><td>Management System/ Production Control</td><td>PTS SG 942 Guidelines and Criteria</td><td>12 Months after Certification</td></tr>
</table>
</td></tr>
</table>

Stage 12 Annual Surveillance Requirements	
	Surveillance 2 (24 Months after Certificate issue, 48 months after scheme / trial installation) **Characteristic** | **Performance Requirements** | **Time(s) at which the performance characteristic shall be determined or measured** Management System/ Production Control | PTS SG 942 Guidelines and Criteria | 24 Months after Certification
	Recertification (36 Months after Certificate issue, 60 months after scheme / trial installation) The 3-year re-certification audit incorporates the Annual Surveillance PTSPAS requirements along with installation, related data collection and any additional surveillance requirements as required. **Characteristic** | **Performance Requirements** | **Time(s) at which the performance characteristic shall be determined or measured** Management System/ Production Control Installation observation | PTS SG 942 Guidelines and Criteria | 36 Months after Certification