



XAIS-PTS LIMITED
XAIS-PTS PRODUCT ASSESSMENT AND CERTIFICATION

PRODUCT ACCEPTANCE SCHEME
MCHW SHW VOLUME 1 CLAUSE 104.15 AND 104.16

GUIDELINES AND CRITERIA DOCUMENT
XAIS-PTSSG 946

FOR THE ASSESSMENT AND CERTIFICATION OF
LOCAL REPAIRS TO MCHW SHW CLAUSE 946

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Acknowledgements

This document is published under the XAIS-PTS Ltd Product Assessment and Certification Scheme (XAIS-PTSPAS).

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

This current version of the XAIS-PTS Guidelines and Criteria Document XAIS-PTSSG 946 has been reviewed and endorsed by the XAIS-PTS Technical Supervisory Panel (XAIS-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 XAIS-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

This Guidelines and Criteria Document must be read, understood, and used as a whole document – it may be misleading or incomplete if read selectively.

The use of, and reproduction of, this Guidelines and Criteria Document is permitted only in accordance with these Terms and Conditions.

References in this Guidelines and Criteria Document to any Act of Parliament, Statutory Instrument, Directive or Regulation, British, European or International Standard, Code of Practice, manufacturers' instructions, or similar publication, are references to such publication in the form in which it was current at the date of the publication of this Guidelines and Criteria Document.

XAIS-PTS Ltd shall undertake and certify product assessment in accordance with this Guidelines and Criteria Document whilst following its Internal Process W15 – XAIS-PTS Product Assessment and Certification, available for reference on XAIS-PTS website, as required in XAIS-PTS Product Acceptance Scheme in accordance with Manual of Contract Documents for Highway Works (MCHW) Specification for Highway Works (SHW) Volume 1 Clause 104.15 and 104.16 and associated processes and procedures. The test methods and protocols contained in this document are for certification purposes only and are not intended for use on a contractual basis as the Specification.

XAIS-PTS Ltd makes no warranties, representations, or undertakings in respect of this Guidelines and Criteria Document. In no event will XAIS-PTS Ltd be liable for any direct or consequential loss or damage arising from its use or use of, or reliance on its content.

All audit activities are undertaken in accordance with XAIS-PTS Terms of Business, which can be found on the XAISPTS Ltd website: <https://www.XAIS-PTS.co.uk>

Revisions

Issue	Details / Revision Changes	By	Reviewed / Approved By	Date
1	Formation of Guidelines and Criteria Document	CH	PTS	11.04.17
2	Further development of Guidelines and Criteria Document	CH	PTS	29.08.17
3	Further development of Guidelines and Criteria Document	CH	PTS	28.03.18
4	Further development of Guidelines and Criteria Document	CH	PTS	01.04.18
5	Review of SHW 900 Series Issue May 2018 and consolidate PTSTSP comments	CH	PTS	04.07.18
6	Further development of Guidelines and Criteria Document	CD	PTS/TSP	12.10.18
7	Further development of Guidelines and Criteria Document	VS	PTS	01.02.19
8	Review of latest version of SROH (v4) in line with Guideline Document requirements, editorial changes	VS	PTS/TSP	November 2020
9	Reformatting of document to house style and review of content	JB/VS	PTS/TSP	July 2021
10	Layout design and logo amended following Phenna Group acquisition	VS/JB	PTS	10.05.22
11	Revision of qualitative visual inspection definitions and requirements	VS/JB	PTS	24.06.22
12	Revision of requirement for qualitative visual inspections	VS/JB	PTS	07.02.23
13	Amendment to scope wording for clarity of accreditation and cross reference to PTS UKAS schedule. Amendment to logo	VS/JB	PTS	13.07.23
14	Changes to Stage 4 requirements to include temporary/emergency repairs - reference to CM231. Added as required	VS/JB	PTS/TSP	09.04.24
15	Change of corporate branding to reflect acquisition of XAIS by PTS to form XAIS-PTS	VS/JB	XAIS-PTS	17.10.24

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Scope

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

The scope of assessment and certification under this XAIS-PTS Guidelines and Criteria document is for the Assessment and Certification of Local Repairs only as named on the XAIS-PTS Application form. The named product(s) must be installed in accordance with the relevant MCHW SHW Clauses, associated standards, sector scheme(s), and Code of Practices. Specific contractual requirements will be taken into consideration as required for any scheme installation trial.

The named product must be installed/applied in accordance with the relevant MCHW SHW Clauses, associated standards, sector scheme(s), 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 XAIS-PTS Ltd that the named product(s), when supplied for its intended use and installed or processed post manufacture, 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 as derived from 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 XAIS-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 performance of a system, additional assessment work may need to be undertaken: such work will be considered and detailed within the issued Certificate under 'Other Investigations'.

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. XAIS-PTS Ltd makes no warranties, representations, or undertakings in respect of this Guidelines and Criteria Document. In no event will XAIS-PTS Ltd be liable for any direct or consequential loss or damage arising from its use or use of, or reliance on its content.

XAIS-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.

XAIS-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.

XAIS-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 XAIS-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 XAIS-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 XAIS-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 submitted to enable review of effectiveness of correction, its verification and satisfaction close out of the nonconformance or additional action if necessary.
COSHH	Control of Substances Hazardous to Health
CPR	<p>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.</p> <p>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.</p> <p>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.</p>
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.
DMRB	Design Manual for Roads and Bridges
DoP	Declaration of Performance
FPC	Factory Production Control
HAUC	The Highway Authorities and Utilities Committee (HAUC(UK))

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 Highways 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)
NH	National Highways
NHSS	National Highways Sector Scheme - Bespoke quality management schemes which supplement ISO 9001:2015 detailing specific application to highway construction and maintenance activities.
Overseeing Organisation	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 XAIS-PTSPAS:
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 service.
Qualitative Visual Condition Inspection	A qualitative visual inspection undertaken to evaluate the characteristics of installed materials to determine the presence of defects indicative of reductions in their integrity/performance.
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 XAIS- 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 subclauses of the MCHW SHW

SROH	Department for Transport – New Roads and Street Works Act 1991 Specification for the Reinstatement of Openings in Highways
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 170211, XAIS-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 SHW of Clause 104.16.
Temporary Repair	An emergency pothole repair or carriageway patch used on the condition that a subsequent permanent repair shall be undertaken as part of programmed maintenance.
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)	<p>The UKCA (United Kingdom Conformity Assessed) marking applies to most goods previously subject to the CE marking. 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).</p> <p>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.</p>
XAIS-PTS Approved Laboratory	An approved laboratory, or recognised research body approved by XAIS-PTS Ltd to carry out test work on behalf of XAIS-PTS Ltd, i.e., sub-contracted by XAIS-PTS Ltd, which may lead to the approval of a product and the issue of a XAIS-PTS Certificate. Before approval, the laboratory will have demonstrated to XAIS-PTS Ltd that it has the relevant expertise, equipment, and quality systems in place to carry out the work required
XAIS-PTS Technical Supervisory Panel Instructions	XAIS-PTSTSP Review Process for the Determination of requirements – Guidelines and Criteria documents and Certification Authorisation
XAIS-PTSPAS	XAIS-PTS Product Assessment Scheme
XAIS-PTSPAS Management Committee	XAIS-PTS Ltd Management Committee team to generate and operate the XAIS-PTSPAS. Consults with XAIS-PTSTSP members. Competencies to Table 1/1 of MCHW SHW Clause 104.16
XAIS-PTSTSP	XAIS-PTS Technical Supervisory Panel as defined in MCHW SHW Volume 1 Clause 104.16

Assessment Stages

The Assessment and Certification process is undertaken in stages and in accordance with XAIS-PTS Process “W15 XAIS-PTS Product Assessment and Certification”, as required in XAIS-PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16 and XAIS-PTS Procedure V4 Audit Plan for evaluation, review, decision, and certification. All documents are available on the XAIS-PTS website. <https://www.XAIS-PTS.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 XAIS-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 XAIS-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 XAIS-PTS Ltd. Details are submitted to XAIS-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 XAISPTS 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 XAIS-PTS website. <https://www.XAIS-PTS.co.uk>

Audit Report

XAIS-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 XAIS-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. XAIS-PTS Ltd shall retain ownership of the audit reports.

XAIS-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. XAIS-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 (whether manufacturer or contractor) 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, then either the Applicant (if the contractor) or any approved external contractors 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 XAIS-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
- Certificate of Factory Production Control (FPC) if manufacturer and/or
- Certificate of National Highway Sector Scheme (NHSS) if contractor

A Contract Review then commences to ensure XAIS-PTS Ltd can accommodate the Applicant's requirements as detailed in XAIS-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 XAIS-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 contractors most recent third-party National Highway Sector Scheme audit report, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement. Review of registration on the UKAS Cert Check 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, XAIS-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 contractors are used, registration to and the 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, 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 XAIS-PTS of any additional conditions as detailed and in documented in MCHW SHW Appendix 7/1.

To ensure the Applicants product(s) are assessed in line with MCHW SHW 104.15 and 104.16 XAIS-PTS will follow the points as detailed within the relevant sections of Clause 104 and MCHW SHW 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 the relevant Sector Scheme Documents for Quality Management in Highway Works to thereby demonstrate leadership engagement, competencies and continuous improvement and shall include details of the "hold points" - 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 o Details and scheduling of Quality Plan required by relevant NHSS or other QMS schemes o Details of registration to relevant NHSS or 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 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 the relevant NHSS 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 XAIS-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 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. XAIS-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: this applies equally to both manufacturer and contractor.
- The audit will examine and document the production / installation process following the design implementation and associated with the production test data to assess for compliance with the requirements given in this Guideline and Criteria document.
- A review of product UKCA / UKNI / CE Marking and DoP.
- XAIS-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 there is no adverse impact on conformity requirements. This will ensure a consistent product and confirm conformity with the production Factory Production Control Quality Plan.
- 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 946 specification, XAIS-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 XAIS-PTS Ltd. However, this data will always be required by XAIS-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 XAIS-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 Applicant shall contact XAIS-PTS and the relevant interested parties to arrange a mutually agreeable date for the product scheme installation trial.

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 scheme installation trial will be witnessed and assessed by XAIS-PTS Ltd to cover the installation procedures as defined in the Applicant's / contractors Installation Method Statement.

The Applicant shall confirm to XAIS-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 their road type/category
- 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 contractor (relevant National Highways Sector Scheme). The contractor 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.
- In the case of production only, the product shall only be installed by the applicant or their approved contractors who shall be registered to the relevant National Highway Sector Scheme or other recognised scheme.

The installation will be witnessed and assessed by XAIS-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 XAIS-PTS Ltd.

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

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

No history of use

- A 2-year product performance review 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 review has already been carried out, existing data relating to the review 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 XAIS-PTS Ltd including qualitative visual inspections and technical information will be gathered on the product.

Temporary Repair: Emergency pothole repair & carriageway patches (CM231.3)

- If a product is expressly identified as for use as “an emergency pothole repair” or “carriageway patch” and it is used on the condition that “a subsequent permanent repair shall be undertaken as part of programmed maintenance”.
- In such cases the expected installed service life of the product, when installed according to the procedures provided by the Applicant, shall be clearly stated, and supporting evidence provided of this longevity from history of use in lieu of the two-year requirement above, on sites representative of its intended end use (road category/ vehicle flow by class/ speed limit).

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

Acceptance of data / consolidation of technical support information

XAIS-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 XAIS-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 XAIS-PTSTSP.

Technical Reports are accepted from recognised XAIS-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 XAIS-PTSPAS Management Committee.

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

Stage 6 - Submission to XAIS-PTS PAS Management Committee

The Stage 5 Report, relevant information, and draft certificate are submitted to the XAIS-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.

XAIS-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 XAIS-PTSTSP shall be made by an independent XAIS-PTS PAS Management Committee in accordance with XAIS-PTS Process W4 Certification and W15 XAIS-PTS Product Assessment and Certification as required in XAIS-PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16.

Stage 7 - Draft Certificate Submission to XAIS-PTSTSP

The Stage 5 Report and the draft certificate are submitted to XAIS-PTSTSP in line with the XAIS-PTSPAS processes. The role of XAIS-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 XAIS-PTSTSP.

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

Stage 8 - Consolidation of Amendments / Approval

At this stage, XAIS-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 XAIS-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 XAIS-PTS Ltd.

Approval for the proposed certificate issue shall be sought from the XAIS-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 XAIS-PTSTSP, the Certificate shall be endorsed by XAIS-PTS Management Committee.

Stage 10 - Certification Documentation

The formal Certification documentation issued by XAIS-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
- XAIS-PTS issuing signature
- 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 XAIS-PTSPAS scope will be described on the published certificates as 'XAIS-PTS Product Assessment and Certification as part of Product Acceptance Scheme MCHW SHW Volume 1 Clause 104.15 and 104.16'.

XAIS-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 XAIS-PTSTSP.

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

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

XAIS-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. Assessments may be carried out remotely in times where access to locations are not permitted.

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

XAIS-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 XAIS-PTSPAS requirements as above with a product recertification after a minimum of three years.

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

The Annual Assessments will follow the requirements as detailed in XAIS-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 XAIS-PTS for the named product taking account of the product having its performance declared under a UKCA / CE mark. XAIS-PTS shall review the most recent third-party QMS Audit Reports, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement.

XAIS-PTS Ltd shall also review the contractors third-party National Highway Sector Scheme audit reports, nonconformities (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 XAIS-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 XAIS-PTS Ltd using the Corrective Action Report Form. The Certificate Holder is to be advised that a further quantitative footway or pavement inspection (at their expense) may be required.

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 XAIS-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 XAIS-PTS PAS Management Committee for their technical content and accuracy in line with the Certificate.

The certificate holder must inform XAIS-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 XAIS-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.

XAIS-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 XAIS-PTS Ltd website. <https://www.XAIS-PTS.co.uk>

Subsequent 3-year re-certification audit

The three-yearly re-certification audits incorporate the Annual Surveillance XAIS-PTSPAS requirements along with related data collection and any additional surveillance requirements as required in accordance with Appendix 1.

XAIS-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 XAIS-PTS Ltd policy, and procedure requirements.

Suspension / Withdrawal of Certificate

XAIS-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 XAIS-PTSPAS requirements as detailed in XAIS-PTS Ltd Processes and XAIS-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 XAIS-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. XAIS-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 XAIS-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. XAIS-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.

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

XAIS-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 XAIS-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 XAIS-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 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 594987:2015 + A1:2017 Asphalt for Roads and Other Paved Areas. Specification for Transport, Laying, Compaction and Product Type Testing Protocols

BS EN 933-3:2012 Tests for geometrical properties of aggregates. Determination of particle shape. Flakiness index

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 12697-1:2012 / 2020 Bituminous mixtures – Test methods Part 1: Soluble binder content

BS EN 12697-2:2015:2015+A12019 Bituminous mixtures — Test methods Part 2: Determination of particle size distribution

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 12697-20:2020 Bituminous mixtures — Test methods Part 20: Indentation using cube or Marshall specimens

BS EN 12697-21: 2020 Bituminous mixtures — Test methods for hot mix asphalt Part 21: Indentation using plate specimens

BS EN 12697-22:2020 Bituminous mixtures. Test methods. Wheel tracking

BS EN 12697-26:2018 Bituminous mixtures - Test methods Part 26: Stiffness

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 13036-4:2011 incorporating corrigendum March 2013 Road and Airfield Surface Characteristics – Test Methods Part 4 Method for Measurement of Slip / Skid Resistance of a Surface: The Pendulum Test

BS EN 13043:2002 Aggregates for bituminous mixtures and surface treatments for roads, airfields, and other trafficked areas

BS EN 13108-1:2006/AC:2008 Bituminous mixtures — Material specifications Part 1: Asphalt Concrete

BS EN 13108-4:2006/AC:2008 Bituminous mixtures — Material specifications Part 4: Hot Rolled Asphalt

BS EN 13108-5:2006/AC:2008 Bituminous mixtures — Material specifications Part 5: Stone Mastic Asphalt

BS EN 13108-6:2006/AC:2008 Bituminous mixtures — Material specifications Part 6: Mastic Asphalt

BS EN 13108-8: 2016 Bituminous mixtures — Material specifications Part 8: Reclaimed Asphalt

BS EN 13108-20:2016 Bituminous Mixtures. Material Specifications. Type Testing

BS EN 13108-21:2016 Bituminous Mixtures. Material Specifications. Factory Production Control

Department for Transport – New Roads and Street Works Act 1991

Specification for the Reinstatement of Openings in Highways (SROH), Fourth Edition (England), May 2020

Design Manual for Roads and Bridges (DMRB) CM231 Pavement surface repairs, Rev 0

Design Manual for Roads and Bridges (DMRB) CD236 Surface Course Materials for Construction, Rev 4

Mastic Asphalt Council Technical Guides

Manual of Contract Documents for Highways Works (MCHW), Volume 1, Series 100, Clause 104.15 and 104.16, April 2022

Manual of Contract Documents for Highways Works (MCHW), Volume 1 Specification for Highway Works, July 2021

National Highway Sector Scheme Document 16 Particular Requirements for the Application of ISO 9001:2015 for Quality Management of the Laying of Asphalt Mixes, Dec 2021

National Highway Sector Scheme Document 23 Particular Requirements for the Application of ISO 9001: 2015 for Quality Management of Small-Scale Repairs, March 2017

PD 6691:2015+A1:2016. Guidance on the use of BS EN 13108, Bituminous Mixtures. Material Specifications.

XAIS-PTS Technical Supervisory Panel Instructions

RSTA ADEPT HE Code of Practice for Ironwork Systems Installation and Refurbishment, May 2017

V4 XAIS-PTS Procedure - Audit Plan

W3 XAIS-PTS Process – On Site Audit

W15 XAIS-PTS Product Assessment and Certification as part of Product Acceptance Scheme in accordance with MCHW

Appendix 1 – Guidelines and Criteria Document Requirements

**XAIS-PTS PRODUCT ASSESSMENT AND CERTIFICATION (PTSPAS)
AS PART OF PRODUCT ACCEPTANCE SCHEME
MCHW SHW VOLUME 1 CLAUSE 104.15 AND 104.16**

**XAIS-PTS SG 946 FOR THE ASSESSMENT AND CERTIFICATION OF LOCAL REPAIRS TO
MCHW SHW CLAUSE 946**

XAIS-PTS Ltd in consultation with XAIS-PTSTSP, reserves the right to amend or supplement the tests required for XAIS-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 946 Specification, XAIS-PTS reserve the right to consider such designs to be outside of the scope of assessment and certification.

XAIS-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 Volume 1 Specification for Highway Works, July 2021 Clause 946 Local Repairs
MCHW Referenced Documents	BS 594987:2015 + A1:2017 Asphalt for Roads and Other Paved Areas. Specification for Transport, Laying, Compaction and Product Type Testing Protocols PD 6691:2015+A1:2016. Guidance on the use of BS EN 13108, Bituminous Mixtures. Material Specifications. BS EN 12697-26:2018 Bituminous mixtures - Test methods Part 26: Stiffness 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 13036-4:2011 incorporating corrigendum March 2013 Road and Airfield Surface Characteristics – Test Methods Part 4 Method for Measurement of Slip / Skid Resistance of a Surface: The Pendulum Test
National Highway Sector Scheme	National Highway Sector Scheme Document 16 Particular Requirements for the Application of ISO 9001:2015 for Quality Management of the Laying of Asphalt Mixes, Dec 2021 National Highway Sector Scheme Document 23 Particular Requirements for the Application of ISO 9001: 2015 for Quality Management of Small-Scale Repairs, March 2017

Application Submission	
	<ul style="list-style-type: none"> 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

Quality Management System (QMS)

Review of Applicants (whether manufacturer or contractor) most recent third-party BS EN ISO 9001:2015 QMS 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 Certificate / FPC Certificate

Where the Applicant is the Manufacturer, a review of most recent third-party Factory Production Control FPC Audit Report, non-conformities (if any), and the associated closeout, observations, and any identified opportunities for improvement shall be carried out.

All contractors review of the product(s) most recent third-party National Highways Sector Scheme 16/23. Audit Report comprising non-conformities (if any), close-out, observations, and any identified opportunities for improvement. Registration of NHSS Scheme on UKAS Cert Check website.

Applicants (whether manufacturer or contractor) Quality Plan to satisfy the QMS details as required by BS EN ISO 9001/NHSS and incorporating the requirements of MCHW SHW Clause 104.

- The Applicant (whether manufacturer or contractor) 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 (whether manufacturer or contractor), who shall also be named in the Quality Plan
- The Applicant (whether manufacturer or contractor) 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 relevant NHSS or other QMS schemes
 - Details of registration to relevant NHSS or 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 sub- mitted 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 the relevant NHSS in accordance with MCHW

	<ul style="list-style-type: none"> Resistance to permanent deformation: Classification No. 2 as defined in Table D.2 of BSI PD 6691 <p>Additional Laboratory Evaluation</p> <ul style="list-style-type: none"> Tests carried out by the Applicant in support of their design process <p>Data from Representative Area of material (>2m²)</p> <ul style="list-style-type: none"> Initial surface texture shall be not less than 0.9mm when measured using the volumetric patch method described in BS EN 13036-1 Minimum wet Skid, Resistance value shall not be less than 60 when determined using the portable skid resistance tester (pendulum) in accordance with BS EN 13036-4 <p>Additional Performance monitoring</p> <ul style="list-style-type: none"> Air voids content in accordance with Table S10.1 (SROH) Thickness in accordance with Table A2.1 (SROH) [for hot laid] Durability <p>Changes shall have been identified, reviewed, and authorised 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.</p> <p>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 XAIS-PTS Ltd. However, this data will always be required by XAIS-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.</p>
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Summary of the Stage 3 and Stage 4 audit processes

Verification	<p>XAIS-PTS Witnessed installation of product Installation to meet MCHW SHW 946, NHSS and CoP requirements</p> <ul style="list-style-type: none"> The initial surface macrotecture The initial wet Skid Resistance value
Validation	<p>Following acceptance of Review of Technical Data Relating to Design Inputs, Verification and Consolidation of Case Studies of the Scheme / Review of case study data prior to submission to XAIS-PTSTSP.</p>
Change management	<p>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</p>

<p>Table 9/19,</p> <p>Sub-clause 946.2, 720.10(v), 903.21</p>	<p>The Applicant shall confirm to XAIS-PTS Ltd (and the relevant interested parties) prior to the agreed date of the scheme installation trial, details of:</p> <p>Verification method by which the design requirements of product, installation requirements, in-service requirement and installation method statement fitness for purpose are established.</p> <ul style="list-style-type: none"> • The date(s) of the planned works • The scheme installation site address(es), road category/ vehicle flow by class/ speed limit. • The application location. • A site / location plan for the installation 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 contractor (relevant National Highways Sector Scheme). The contractor 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. <p>The installation will be witnessed and assessed by XAIS-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 (whether manufacturer or contractor) Installation Method Statement (IMS) along with the process control and evidence of approved suppliers / contractors.</p> <p>The Applicant must arrange for a UKAS accredited testing laboratory to ISO/IEC 17025 or recognized research bodies to undertake validation, this may include taking samples for laboratory testing from the installation.</p> <p>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 XAIS-PTS Ltd.</p> <p>The technical aspects of the IMS audit, including photography, site locations and details, contractors, etc. will be summarized in the form of a standalone report prepared by XAISPTS Ltd, referenced in the Assessment Certificate and available to XAIS-PTSTSP / Overseeing Organisation upon request</p> <p>Size of Area of Defectiveness</p> <p>Areas of defectiveness up to 1m² in surface area may be repaired using an inset patch. The repair technique used shall be as given in Table 9/19.</p> <p>Areas of defectiveness greater than 1m² shall be repaired by inset replacement over a length and width in accordance with sub-Clause 702.10(iv) and sub-Clause 903.21.</p>
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TABLE 9/19: (05/18) Repair Technique

Size (approx. m ²)	Application	Repair technique
Up to 1.0	Individual pothole or road stud hole. Discrete area of local defectiveness	Inset patch
In excess of 1.0 or several closely adjacent areas less than 1.0	Wide area of local defectiveness.	Replacement for minimum length of 5m or 15m in accordance with sub-Clause 702.10 (iv). Full lane width or less where practicable, joints to comply with sub-Clause 903.21.

Preparation: Inset Patch Repair for Areas ≤ 1.0m²

Sub-clause 946.3 The edges of the repair shall be saw-cut or planed in a neat rectangular shape in sound surfacing at a distance of at least 0.25m beyond the defective area. The saw-cut or planed opening shall have vertical straight edges and extend for the full depth of surface course. For repairs that extend into the binder course and/or base these lower layers may be removed by the use of a mechanical breaker. An offset stepped detail for the binder and base layers shall be used to ensure that vertical joints do not pass through more than one layer at the same location.

A minimum horizontal step of 100mm shall be provided at all layer interfaces.

Sub-clause 946.4 All existing material within the saw-cut perimeter of the repair area shall be removed and the base and sides of the cavity thoroughly cleansed of all loose material and moisture to provide clean and dry surfaces throughout.

Sub-clause 946.5 The prepared vertical joints and the base of the cavity shall be treated in accordance with sub-Clause 903.22.

Sub-clause 903.22

Repair Materials: Inset Patch Repair for Areas ≤ 1.0m²

Sub-clause 946.6-946.7 Repair materials shall comply with the specification requirements stated in contract specific Appendix 7/1. Unless otherwise stated in contract specific Appendix 7/1 repair materials shall be consistent with, and compatible to, the surrounding materials.

Clause 911 Repair materials for patches in hot rolled asphalt surfacing shall be in accordance with Clause 911.

<p>Sub-clause 946.8- 948.9</p> <p>Sub-clause 946.15</p> <p>BS EN 12697-26</p> <p>BSI PD 6691</p>	<p>Construction Inset Patch Repair for Areas $\leq 1.0m^2$</p> <p>Construction of the repair should commence at the edges and progress inwards with particular care for full compaction especially in the vicinity of the vertical joint faces. All construction layers shall be laid and compacted such that on completion each layer shall be at the same level as the adjacent course.</p> <p>The repair material must be compacted using rollers, vibrating plates and/or tampers as appropriate for the size of the repair. The corners of the repair are the most vulnerable to distress and particular care must be taken to achieve full compaction in these areas.</p> <p>Proprietary Materials and Techniques for Repairs $\leq 1.0m^2$</p> <p>Evidence from laboratory evaluation shall be provided by the Contractor to the Overseeing Organisation to demonstrate that the proprietary repair materials and/or techniques comply with the following performance criteria:</p> <ul style="list-style-type: none"> • Stiffness: ≥ 1 GPa after 28 days when tested in accordance with BS EN 12697-26 (ITSM method 20°C) • Resistance to permanent deformation: Classification No. 1 as defined in Table D.2 of BSI PD 6691
<p>Sub-clause 946.16</p> <p>BS EN 13036-1</p> <p>BS EN 13036-4.</p> <p>Sub-clause 946.10</p> <p>Sub-clause 702.10 (iv), Subclause 903.21</p> <p>Sub-clause 946.11</p>	<p>Testing of Representative area of material/ technique</p> <p>Data from a representative area of the material and/or technique, for a local repair $>2m^2$ in size, must be provided to demonstrate that the finished surface to be trafficked complies with the following:</p> <ul style="list-style-type: none"> • The initial surface texture shall be not less than 0.9mm when measured using the volumetric patch method described in BS EN 13036-1 • The minimum wet Skid Resistance value shall not be less than 60 when determined using the portable skid resistance tester (pendulum) in accordance with BS EN 13036-4. <p>Large areas of Repair: Repair Areas $>1.0m^2$</p> <p>Large areas shall only be repaired with materials installed using full scale self-propelled paving machinery. The extent of the repair area shall be as described in sub-Clause 702.10(iv) with appropriate longitudinal and transverse joints in accordance with sub-Clause 903.21.</p> <p>Repairs to large areas in Thin Surface Course Systems shall be undertaken in accordance with the instructions stated in contract specific Appendix 7/1.</p>

Stage 3 continued

Scheme / Trial Installation Method Statement Audit

Material Compliance	
Sub-clause 946.12	Repair materials shall comply with the specification requirements stated in contract specific Appendix 7/1. Unless otherwise stated in contract specific Appendix 7/1 repair materials shall be consistent with, and compatible to, the surrounding materials.
Sub-clause 946.13	Areas exceeding 1m ² in existing hot rolled asphalt surfacing shall be repaired using hot rolled asphalt material in accordance with Clause 911.
Sub-clause 946.14 Clause 903 BS594987	Placing and compaction shall be in accordance with Clause 903 and BS594987 with use of bond coat in accordance with Clause 920.

Stage 4

Review of Technical Data Relating to Design Inputs Verification and Consolidation of Case Studies of the Scheme / Trial

	<p>Product Performance Scheme/Trial, Qualitative Visual Condition Inspection of selected case studies: Review of Technical Data Relating to Design Inputs Verification and Consolidate Case Studies of the 'Scheme' / 'Trial'</p> <p>Product Performance Review /Qualitative Visual Condition Inspection of selected case studies</p> <p>1) <i>No history of use</i> A 2-year product performance review 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.</p> <p>2) <i>History of use - retrospective process</i> 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 with a portfolio of evidence will be required for a pre-existing installation (including road category/ vehicle flow by class/ speed limit).</p> <p><i>Emergency pothole repair & carriageway patches (CM231.3)</i></p> <ul style="list-style-type: none"> • If a product is expressly identified as for use as “an emergency pothole repair” or “carriageway patch” and it is used on the condition that “a subsequent permanent repair shall be undertaken as part of programmed maintenance”, evidence of two years successful product performance may not be required. • In such cases the expected installed service life of the product, when installed according to the procedures provided by the Applicant, shall be clearly stated and supporting evidence provided of this longevity from history of use in lieu of the two-year requirement above.
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Stage 4

Review of Technical Data Relating to Design Inputs Verification and Consolidation of Case Studies of the Scheme / Trial

The suitability of the data and evidence from other assessments or trials will be based on the requirements of this XAIS-PTSPAS Guidelines and Criteria Document. The findings and associated information will be consolidated in a standalone Stage 4 Technical Report prepared by XAIS-PTS Ltd and submitted to XAIS-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

XAIS-PTS Ltd will accept test data from laboratories with UKAS testing accreditation to ISO/IEC 17025 or a XAIS-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 XAIS-PTS Ltd approved laboratory is employed, they will be required to submit a copy of their test method procedure to XAIS-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 XAIS-PTSTSP.

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

Stage 5

Review of Details

XAIS-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 XAIS-PTSPAS Management Committee.

Stage 6

Submission to XAIS-PTS PAS Management Committee

The Stage 5 Report, relevant information, and draft certificate are submitted to the XAISPTSPAS 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.

Stage 6 continued

Submission to XAIS-PTS PAS Management Committee

If the issue of an Interim Certificate is proposed, this will be clearly stated along with the reasons for this decision.

The XAIS-PTSPAS Management Committee shall in accordance with this Guidelines and Criteria Document, XAIS-PTS internal processes: Process W4 Certification and W15 XAIS-PTS

Product Assessment and Certification as required in XAIS-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 XAIS-PTSTSP.

7 days' notice is given to the XAIS-PTSTSP to advise of intention to submit information.

Stage 7

Draft Certificate Submission to XAIS-PTSTSP

The Stage 5 Report and draft certificate are submitted to XAIS-PTSTSP in line with the process W15 XAIS-PTS Product Assessment and Certification as required in XAIS-PTS Product Acceptance Scheme in accordance with MCHW SHW Volume 1 Clause 104.15 and 104.16.

The role of XAIS-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 XAIS-PTSTSP have 3 working weeks to conduct the review. On completion of their individual evaluations, each XAIS-PTSTSP panel member will either forwards their response / comments to XAIS-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 XAIS-PTS Technical Supervisory Panel Instructions.

Stage 8

Consolidation of Amendments / Approval

At this stage, XAIS-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 XAIS-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 XAIS-PTSTSP for review. The XAIS-PTSTSP have a further 3 working weeks to conduct this review.

On completion of their individual evaluations, each XAIS-PTSTSP panel member will either forward their response / comments to XAIS-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 XAIS-PTS Technical Supervisory Panel Instructions. This will be their Certification Decision

Stage 8 continued

Consolidation of Amendments / Approval

Approval for the proposed certificate issue shall be sought from the XAIS-PTSTSP following completion of all necessary requirements and acceptance of notification of the proposed publication date. XAIS-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 XAIS-PTSTSP, the Certificate shall be endorsed by the XAIS-PTS Management Committee.

Stage 10

Certification Documentation

The formal Certification documentation issued by XAIS-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 Name
- Product Family
- Specialist Group (SG) Reference and certificate number
- Date certification is granted and expiry date of certification
- Name and address of the Certificate Holder organisation
- XAIS-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 XAIS-PTSPAS scope will be described on the published certificates as 'XAIS-PTS Product Assessment and Certification as part of Product Acceptance Scheme MCHW SHW Volume 1 Clause 104.15 and 104.16'.

XAIS-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 XAIS-PTSTSP.

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

Stage 12

Surveillance Requirements / Performance Monitoring / Agreement and Implementation of Validation

XAIS-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 Criteria Document, MCHW SHW, Codes of Practice, associated Specifications, standards and normative documents, XAIS-PTS Ltd policies, procedures, and processes.
- 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.

Surveillance audits cover the XAIS-PTSPAS requirements as above with a 3-year recertification. If at any surveillance stage the Guidelines and Criteria requirements are not met, non-conformities may be raised, possible suspension if the certificate or withdrawal. collection and any additional surveillance requirements as required.

Certificate Holders Premises / Production location(s):

- Review of Certificate Holders most recent third-party QMS and FPC Audit Reports, nonconformities (if any), and the associated close-out, observations, and any identified opportunities for improvement.
- Review the contractors third-party National Highway Sector Scheme audit reports, non-conformities (if any), and the associated close-out, observations, and any identified opportunities for improvement or
- 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 XAIS-PTS Certification Mark / Logo
- Witnessed installation of product

Surveillance 1 & 2 (12 Months & 24 months after Certification)

Characteristic	Performance Requirements	Time(s) at which the performance characteristic shall be determined or measured
Management System/ Production Control	XAIS-PTS SG 946 Guidelines and Criteria	12 & 24 Months after Certification

Recertification (3 years after Certification, 36 months after scheme / trial installation)

Characteristic	Performance Requirements	Time(s) at which the performance characteristic shall be determined or measured
Management System/ Production Control	XAIS-PTS SG 946 Guidelines and Criteria	36 Months after Certification
Witnessed installation and /or Qualitative Visual Inspection (see note)	XAIS-PTS SG 946 Guidelines and Criteria	36 Months after Certification

Note:

Temporary / emergency pothole repair (CM231.3)

If a product is expressly identified as for use as *“an emergency pothole repair”* or *“carriageway patch”* and it is used on the condition that *“a subsequent permanent repair shall be undertaken as part of programmed maintenance”*, evidence of extended product performance may not be possible. However, evidence of ongoing performance in line with stated longevity will be required.