

TOPAS

Traffic Open Products and Specifications

TOPAS 0600E *TOPAS Registration Process*

Revision	Date	Scope	Authorised by
E	24/11/22	Final	Board
D	20/5/21	Final	Board
C	22/04/19	Final	Board
B	06/05/16	Final	Board
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TOPAS 0600E

TOPAS REGISTRATION PROCESS

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CHANGE LOG

The following outlines significant changes to this specification, from its previous issue. These changes are not retrospective and have no impact on existing Product Registrations.

All new product Registrations, from the date of its issue, shall follow the process described herein.

Changes for Version E

- a. Historical context information in section 1 and elsewhere removed.
- b. Section 1.8 amended to clarify that products must comply with UK legislation as well as well as any standards and specifications defined in the TOPAS Technical Product Specifications.
- c. Section 2.8 and 3.15 updated to require Test Facilities to be certified to ISO/IEC 17025 series of standards (replacing EN45000).
- d. Testing requirements updated (sections 3.5 to 3.16), including specific note that TOPAS 2130 takes precedence over individual TOPAS specifications and that Radio Equipment Regulation compliance may be required even if not explicitly required by an individual TOPAS specification.
- e. A new diagram (Figure 1) added to the end of the document to help explain the hierarchy of legislation, standards and specifications as they apply to TOPAS Registered Products.

Changes for Version D

- a. General minor updates and improvements to aid readability.
- b. Section 1.8 updated to remove reference to European standards and focus on compliance with UK standards.
- c. The definition of a Technical Assessor has been amended. (section 2.6).
- d. Sections on use of existing HA Approvals as a means to achieve Registrations now removed as this process is now no longer appropriate (Any Products with applicable HA approvals have already been Registered and in many cases the specifications on which those Approvals were based have now been updated / up-issued, potentially preventing the simple transfer of HA approval to TOPAS registration in some cases.
- e. Clause 4.11 added to clarify the Registration of families of products.

- f. The process for re-Registration of Products when TOPAS specifications are up-issued is now defined in section 4.21.
- g. All forms have been removed from TOPAS 0600 and are provided as separate documents, available from the TOPAS website. Their use is now explicitly identified in each step of the Registration process.

1. INTRODUCTION

General

- 1.1. To avoid the need for individual Authorities to write and maintain their own detailed performance specifications, TOPAS maintains and updates key specifications for traffic signal and related equipment used on UK roads.
- 1.2. In addition, TOPAS also maintains a Register of all equipment which is recognised as meeting the relevant specification. Local and other Purchasing Authorities can reference this Register and typically require that equipment purchased complies with TOPAS specifications and is TOPAS Registered.
- 1.8. Registered equipment is required to comply with all relevant UK legislation and standards. Equipment is also required to comply with specific standards as defined in the individual TOPAS Technical Product Specifications. A pictorial overview is provided in Figure 1 (at the end this document).

Scope

- 1.3. This document provides the detailed requirements and procedures for Registration of products against TOPAS specifications.
- 1.4. Registration requires that Manufacturers operate within a defined Quality Management system and that individual Registration applications are accompanied by a Statement of Compliance issued by a third party Technical Assessor.
- 1.5. Equipment that is Registered with TOPAS is listed on the TOPAS website www.topasgroup.org.uk

Status of TOPAS specifications

- 1.6. TOPAS Technical Product Specifications are explicitly Purchasing Specifications and compliance with them is not mandatory.
- 1.7. Under the Sale and Supply of Goods Act, vendors must purvey goods that are as described, of merchantable quality and fit for purpose. TOPAS Registration does not guarantee compliance with the Act but does seek to encourage best practice so that compliance is expected to be the norm.

2. DEFINITIONS

- 2.1. TOPAS – Traffic Open Products and Specifications.
- 2.2. TSRGD – Traffic Signs Regulations and General Directions: the legislation which prescribes traffic signs and the minimum safety requirements for traffic control equipment.
- 2.3. Manufacturer – A body responsible for the manufacture or supply of a product for which TOPAS Registration exists or is being sought.
- 2.4. Purchaser – Any body or individual who buys Traffic Control or monitoring equipment encompassed by the TOPAS procurement specifications.
- 2.5. Registration – The process described in this document which enables Manufacturers to have their products included in the list of products which have been accepted as meeting the relevant TOPAS specification which may be referenced by prospective Purchasers.
- 2.6. Technical Assessor - A third-party body, recognised by TOPAS as competent to undertake the assessment. A list of current Technical Assessors can be found on the TOPAS website: www.topasgroup.org.uk.
- 2.7. Technical File – The file of documentation and results necessary for Registration which demonstrates that the product has been designed and tested to meet a relevant TOPAS procurement specification.
- 2.8. Accredited Test Facility - Any facility that is formally certified to the ISO/IEC 17025 series of standards and commissioned to test and certify a products optical, environmental, EMC or radio performance.

3. GENERAL REQUIREMENTS

Scope

- 3.1. Products which are Registered with TOPAS are normally required to have been designed and tested within a certified EN ISO 9001 Quality Management System or nationally recognised equivalent.
- Where an organisation has an effective Quality Management System which is not formally certified, this may also be accepted by TOPAS, as long as detailed evidence of its existence and effectiveness is provided to the Technical Assessor as part of the Registration process.
- 3.2. This section defines the requirements for product validation testing which must be demonstrated by the Manufacturer seeking TOPAS Registration.
- 3.3. A list of current TOPAS specifications can be found on the TOPAS website, www.topasgroup.org.uk.
- 3.4. The Registration procedure is explained in section 4.
- 3.9. Other internal test schedules and results, (depending on the requirements of the individual TOPAS Technical Requirement Specifications), may be simply referenced by document part number and formal issue status. (Detailed test results may be requested by TOPAS as part of the Registration process set out in section 4 of this document).
- 3.10. The tests, which are the responsibility of the Manufacturer, shall always address at least:
- i) Functional performance affecting the safe operation of the product when installed on the highway;
 - ii) Key operational and functional performance requirements that do not relate to public safety;
 - iii) Failure modes operation of the product and where applicable its controlled shut down and recovery.
 - iv) The product's suitability for the environment in which it is intended to operate, where these are not covered by formal environmental or EMC testing regimes.

Product Testing

Requirements

- 3.5. Product design and design proving is expected to be undertaken in a formal environment, where product tests are properly specified and test records are maintained.
- 3.6. The Manufacturer will maintain a Technical File, recording evidence of all relevant product testing results and is responsible for maintaining the Technical File.
- 3.7. Appendix Z of the individual TOPAS Technical Product Specifications provide minimum content requirements for Technical Files to be used in support of Product Registration for each product.
- 3.8. All detailed environmental, EMC, radio and optical test results shall be included in the Technical File.

Environmental, EMC, radio and optical testing

- 3.11. To achieve TOPAS Registration, Products must be tested and meet the EMC and environmental performance requirements defined in TOPAS 2130.
- Note:** TOPAS 2130 takes precedence over any environmental test requirements that may be contained within individual TOPAS Technical Product Specifications.
- 3.12. Where required by an individual TOPAS Technical Product Specification, optical testing shall be undertaken as defined by that specification.

- 3.13. Where required by an individual TOPAS Technical Product Specification, Radio Regulation Compliance testing shall be undertaken as defined by that specification.
- Note:** Where an individual TOPAS Technical Product Specification does not contain explicit radio requirements, but the Product does include a radio transmitter, receiver or transceiver, compliance with the Radio Equipment Regulations (2017) is required and compliance documentation must be included in the Technical File.
- 3.14. All environmental, EMC, radio and optical testing shall be undertaken by an Accredited Test Facility. Test reports and certificates issued by the facility shall form part of the Technical File submitted to the Technical Assessor as part of the TOPAS Registration procedure defined in section 4.
- Note:** Where an Environmental Test Certificate clearly identifies the equipment under test (for example by part number and serial number), includes details of the tests undertaken, at least by reference to the relevant EN specification defining the test and provides a clear statement that the test has been passed, the test certificate alone may be submitted in lieu of a full test report.
- 3.15. Any facility that is commissioned to test and certify optical, environmental EMC or radio performance must be formally certified to the ISO/IEC 17025 series of standards.
- 3.16. Worldwide certification will be accepted provided the certification body is mutually recognised by the United Kingdom Accreditation Service (UKAS), however the actual test standards used must be referenced up in this document.

4. REGISTRATION PROCEDURE

Introduction

- 4.1. TOPAS Registration aims to give Purchasers of traffic control and monitoring equipment confidence that the equipment they purchase has been designed and tested within an appropriate quality system and meets the requirements of the relevant TOPAS Technical Product Specification.
- 4.2. The process relies on the manufacturer certifying that the appropriate TOPAS Technical Product Specification have been complied with, but also involves an independent review of the Product Technical File to increase confidence that the equipment complies with specification requirements.
- 4.3. The detailed content requirement for the Technical File is defined in the TOPAS Technical Product Specification for the Product.

Outline Process

- 4.4. The Manufacturer will undertake product design and testing using a properly documented engineering process.
- 4.5. At the completion of the design and testing process the Manufacturer submits a completed Product Technical File and Declaration of Conformity, using TOPAS form T001, to an appropriate Technical Assessor.
- 4.6. The Technical Assessor verifies that the content of the Technical File meets the requirements of the TOPAS Technical Product Specification against which the product is to be Registered.
- 4.7. The Technical Assessor completes the Statement of Compliance section of the Declaration of Conformity and returns it to the Manufacturer.

- 4.8. The Manufacturer submits the completed Declaration of Conformity together with a Registration Application, using TOPAS form T002, along with the Registration fee to TOPAS.
- 4.9. TOPAS will review the documentation and if all is in order will add the product to the TOPAS Register and notify the Manufacturer.

Product Technical Options

- 4.10. Certain TOPAS Technical Product Specifications define optional requirements or performance features that the Manufacturer may wish to include in a product. The Technical File and Application for Registration shall define unequivocally if the product includes or excludes defined options, by reference, on TOPAS form T002, to their specification section or appendix.

Product Variants and Families

- 4.11. A single Registration may be requested to apply to a whole family of Product variants (using form TOPAS T001), providing they meet the following criteria:
 - i) All variants are to be Registered to the same TOPAS specification.
 - ii) All variants are of a common underlying design and can legitimately be easily viewed as part of a family of products. Examples are a family of ELV traffic controllers, or a family of pedestrian indicators.

Note: In cases where it's unclear if a family Registration will be possible please contact TOPAS via the TOPAS website (www.topasgroup.org.uk), prior to the commencement of the Registration process.

Notification of Registration

- 4.12. On successful completion of the Registration process TOPAS will issue a Certificate of Registration which may be freely used by the Manufacturer to demonstrate that the product is TOPAS Registered.
- 4.13. A product will normally remain Registered indefinitely until it is significantly changed or is declared obsolete by the Manufacturer. (Obsolete products may continue to be used on-street but may no longer be supported by the Manufacturer in terms of spares or other technical back-up).
- 4.14. A product will be required to be re-Registered if the legal entity of the Manufacturer changes. This is achieved by simply providing TOPAS with evidence of the change of legal entity and listing the products affected by the changes, using TOPAS form T003. (There is no charge for this re-Registration).
- 4.15. If a Manufacturer ceases trading, no other legal entity takes over responsibility for the product and a significant number are still in use the product will be declared obsolete in the TOPAS Register.
- 4.16. If a Registration request is refused by TOPAS (due to ambiguity or interpretation of a TOPAS specification), a Manufacturer may request that the Registration is reviewed by the TOPAS Management Board. The decision of the Management Board, to award or withhold Registration, will be final.
- iii) Addition of new product variants of a Registered Product, where compliance with the relevant TOPAS specification is maintained.
- 4.18. Where such changes are made, Manufacturers are advised to notify TOPAS in writing using form TOPAS T004, so that the TOPAS product registration information is kept up to date.
- 4.19. Where changes are significant, re-Registration (or new Registration) is necessary. Examples of changes where re-Registration / new Registration is required include:-
- i) Major update to hardware or firmware which effectively creates a new product, for example a type T001 product updated and now being sold as a T002 product.
 - ii) Any changes to hardware or firmware where compliance with the relevant TOPAS specification is affected.
 - iii) Any major changes which affect the failure modes operation of the product and where applicable its controlled shut down and recovery.
- 4.20. Where a Manufacturer is in doubt about the scope of a change the Manufacturer should seek advice from TOPAS via its website www.topasgroup.org.uk.

Updating Registrations when TOPAS Specifications Change

Modifications to Registered Products

- 4.17. TOPAS encourages innovation and product updates to enhance or correct issues with Registered products and such changes would not normally require re-Registration. Examples of changes where re-Registration is not required include:-
- i) Minor updates to hardware or firmware to correct defects or obsolescence.
 - ii) Minor enhancements to hardware or firmware where compliance with the relevant TOPAS specification is not affected.
- 4.21. From time-to-time TOPAS Technical Product Specifications may change, requiring re-Registration of Products to the specifications latest issue. The requirements for Re-Registration depend on the nature of the changes and are defined in each specification individually. In many cases, where the Product remains compliant with the updated specification, it is simply necessary to confirm ongoing compliance to TOPAS using form TOPAS T005. (There is no charge for this re-Registration).

5. AUDITS

Prior to Registration

- 5.1. Should TOPAS consider it necessary to validate a Registration application an audit relating to the Design Authority's Quality Management System (QMS) and Technical File may be implemented.
- 5.2. If, as a result of an audit, the self-certification that the product meets the relevant specifications is deemed to be fraudulent, unsubstantiated or the product is in breach of the specification then the Registration request will be rejected. (The Registration fee paid by the Manufacturer will also be forfeit).

Post Registration

- 5.3. Should TOPAS receive a formal complaint, or if the performance of a Registered product has been proved to be unsatisfactory, or any safety concerns are brought to the attention of TOPAS an audit may be undertaken to investigate the complaint.
- 5.4. If it is proved that the conformity, reliability or serviceability of the product fails to meet the TOPAS Technical Product Specification then the Registration may be revoked. (See Section 5 Revocation of Registration.)

Audit

- 5.5. TOPAS shall have reasonable access to inspect the Quality Management System, Technical File, Product production facilities and may require further Product testing or previously documented tests to be repeated at the Manufacturers cost and witnessed by a nominated TOPAS representative.
- 5.6. Tests may be carried out at the Manufacturer's premises using products taken at random from a production batch or removed from an installed site.

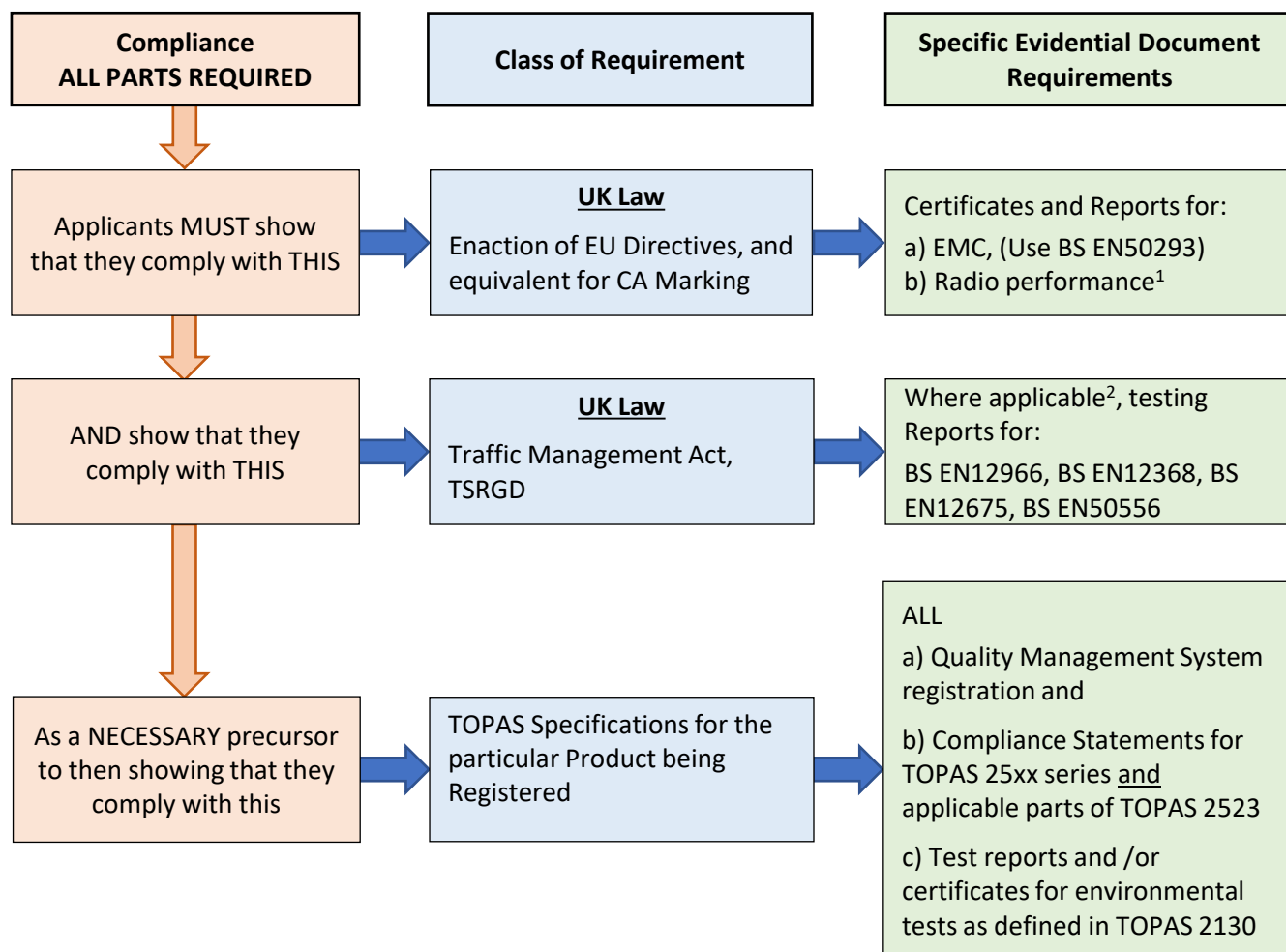
6. REVOCATION OF REGISTRATION

- 6.1. If TOPAS considers that a Manufacturer has failed to resolve the issues raised during an audit, or that implementation of an agreed remedial action is inadequate, it may initiate action to revoke the Registration.
- 6.2. The revocation procedures culminate in the withdrawal of Registration. As TOPAS Registration is not mandatory revocation does not mean that products must be withdrawn from service. Such a withdrawal is a matter which may however be pursued by the Purchasing Organisation.
- 6.3. The list of Registered products on the TOPAS website will be updated to show that the Products Registration has been withdrawn.
- 6.4. Once Registration has been revoked, any subsequent modification and application for re-Registration of that product shall be submitted as for a new product.

Figure 1 – Hierarchy of legislation, standards, and specifications

The figure below outlines a hierarchy of standards and specifications where evidence is required to achieve TOPAS registration.

Important Note: To achieve TOPAS Registration, it is not required that the Technical File include evidence of compliance with all the relevant directives and legislation that may apply to the Product, nevertheless Products are still required to be compliant with all the relevant UK legislation and standards (section 1.8).



Note 1. If required by an individual TOPAS Technical Product Specification or if the Product contains radio equipment (even if this is not an explicit requirement of the specification).

Note 2. The exact nature of the evidence required is defined in the relevant TOPAS specifications. For example compliance with BS EN12368 or BS EN 12966 may require formal optical test reports, whilst compliance with BS EN 12675 and BS EN 50556 may only required reference to the Manufacturers internal test reports.

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