Bundesanstalt für Materialforschung und -prüfung (BAM)

Berlin, 2024-01-08

Information on the Conformity Assessment Procedures for Pyrotechnic Articles under The Pyrotechnic Articles (Safety) Regulations 2015 (as amended)

General information

The Bundesanstalt für Materialforschung und –prüfung (BAM) is an approved body with the number 0589 under The Pyrotechnic Articles (Safety) Regulations 2015 (as amended) for the applicable modules B, C2, D and E. BAM is entitled to conduct the conformity assessment procedures for pyrotechnic articles of the categories T1, T2, P1 and P2 including pyrotechnic articles for automotive purposes. Within the conformity assessment procedures, the latest versions of the applicable standard series are the preferred testing and assessment principles:

- EN 16256 series (Pyrotechnic articles – Theatrical pyrotechnic articles)
- ISO EN 14451 series (Pyrotechnic articles – Pyrotechnic articles for vehicles)
- EN 16263 series (Pyrotechnic articles - Other pyrotechnic articles)
- EN 16265 (Pyrotechnic articles – Other pyrotechnic articles - Ignition devices) and
- EN 16264 (Pyrotechnic articles – Other pyrotechnic articles – Cartridges for powder actuated tools)

Costs

Testing and other services of BAM are subject to payment which is charged according to the list of prices and services of the Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und –prüfung BAM) of 14 June 2021. Time spent on testing and costs for materials will be charged in accordance with the legal prescriptions. The current hourly rate of the division 2.5 of BAM is 180 €. Flat rate agreements are beyond what BAM can offer.

From the above information it is not possible to specify the actual costs for conformity assessment procedures. The following gives some indications on costs valid for UK type-examinations for pyrotechnic articles.

UK type examination procedure (module B)

Application

An application for UK-type examination must include:

(a) the name and address of the manufacturer;

(b) a written declaration that the same application has not been lodged with any other approved body;

(c) the technical documentation. The technical documentation shall make it possible to assess the pyrotechnic article's conformity with the applicable requirements of the Regulations and shall

include an adequate analysis and assessment of the risk(s). The technical documentation shall specify the applicable requirements and cover, as far as relevant for the assessment, the design, manufacture and operation of the pyrotechnic article. The technical documentation shall contain, wherever applicable, at least the following elements:

(i) a general description of the pyrotechnic article;

(ii) conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.;

(iii) descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the pyrotechnic article;

(iv) a list of the designated standards applied in full or in part and, where those designated standards have not been applied, descriptions of the solutions adopted to meet the essential safety requirements of these Regulations including a list of other relevant technical specifications applied. In the case of partly applied designated standards, the technical documentation shall specify the parts which have been applied;

(v) results of design calculations made, examinations carried out, etc.;

(vi) test reports;

(d) the specimen's representative of the production envisaged. BAM may request further specimens if needed for carrying out the test program;

(e) the supporting evidence for the adequacy of the technical design solution. This supporting evidence shall mention any documents that have been used, in particular where the relevant designated standards have not been applied in full. The supporting evidence shall include, where necessary, the results of tests carried out in accordance with other relevant technical specifications by the appropriate laboratory of the manufacturer, or by another testing laboratory on his behalf and under his responsibility.

(f) If the pyrotechnic article has already passed a positive conformity assessment according to the European Directive 2013/29/EU, the entire EU-type examination certificate (including test and assessment report and the technical annexes) shall be delivered. In this case, BAM checks the documentation and decides, if further tests are required.

Costs can be estimated to range from 500 € to 2000 € for each certificate. The range of figures is related to the differing complexity of articles, required number of items, product families, assessment of results and already existing EU-type examinations for this article, if applicable.

The figures are based on a rough estimate and former certifications and are applicable where no extraordinary problems occur. They all are based on the hourly rate and the respective working times.

Monitoring of quality control modules

An application on the assessment of quality control in accordance with one of the modules (see Schedule 2A of the Pyrotechnic Articles (Safety) Regulations) is the pre-requisite for periodic inspection visits. The application will apply to a range of, or perhaps to all, products of the manufacturer, where the list of products under supervision is either placed in an Annex to the contract or is part of the quality management handbook.

The costs per audit are based on the invested time (before, during and after the audit), travelling costs (e.g. flights/trains and hotel) as well as the travelling times considering the hourly cost rate.

Further information

Certificates and corresponding documents are issued only in English language.

In case of further general questions please address these to:

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