

Information on the conformity assessment procedure according to Directive 2014/28/EU for explosives

Explosives for civil use are under the scope of the European Directive 2014/28/EU¹. Explosives include specifically blasting explosives, detonating cords, propellants, black powder, explosive pre-products, detonators, relays, and delay elements. Pyrotechnic compositions are explosives in this sense, too. The Directive 2014/28/EU contains in Annex I a list of UN-numbers referring to dangerous goods regulations², which shall be regarded explosives for the purpose of the Directive. In most cases this serves as a good indication. To be seen separately are pyrotechnic articles, which are subject to a different directive dealing only with these³.

Explosives have to be subjected to two procedures, before they may be placed on the community market. The two steps are:

- * the **EU type examination** with verification of conformity of specimens to the requirements set out in Annex II of Directive 2014/28/EU, done by a Notified Body, and
- * the **monitoring of the quality control** of the manufacturer according to one of the modules of Annex III of the Directive for explosives in series production, also done by a Notified Body.

The application for **EU type examination** has to contain the following information:

- * name or trade name of the explosive;
- * name and address of the manufacturer;
- * if applicable, name and address of an authorised representative, who will be responsible for the making available on the European market and for the conformity assessment procedure of the explosive; in this case a written mandate issued by the manufacturer stating that the authorised representative may engage in the conformity assessment procedure, shall be provided;
- * a written declaration that the same application has not been lodged with any other notified body.

In addition we require:

- * in case of substances: information on the exact chemical composition of the sample submitted for inspection plus a suggestion on how to give ranges of the components, as it will be made publicly available through the Annex 2 of the EU type examination certificate;
- * in case of articles: sectional drawing and part list, for all explosive components their composition and mass;
- * information on characteristic properties (e. g. density, velocity of detonation, grain size distribution, etc.);

1 DIRECTIVE 2014/28/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market and supervision of explosives for civil uses (recast), Official Journal of the European Union L 96/1

2 UN Recommendations on the transport of dangerous goods, model regulations

3 DIRECTIVE 2013/29/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 June 2013 on the harmonisation of the laws of the Member States relating to the making available on the market of pyrotechnic articles (recast), Official Journal of the European Union L 178/27

- * suitable instructions and, where necessary, information in respect of safe handling, storage, use and disposal;
- * for the type tests we need a sample of around 25 to 50 kg for blasting explosives, 200 m of detonating cord, and 1.5 kg in the case of pyrotechnic compositions;
- * for type testing of propellants and black powder we need a sample of 5 kg;
- * for type testing of detonators, relays, and delay elements we need a number of samples which depends on the offered types and delay times. The amount of samples has to be determined on a case by case basis.

Testing and services in general of BAM are subject to payment which is charged on the basis of time spent and according to the related ordinance on fees (SprengKostV) in conjunction with the ordinance on fees of BAM. Costs for testing materials (consumables) are also charged. The conformity assessment of a type and issuing of documents will amount to around 5000,- € for explosives and to 3500,- € for propellants. Amendments and formal changes will cost around 700 to 1100,- €. A more exact estimation can be requested on a case-by-case basis.

The **monitoring of the quality control** during production of explosives has to follow one of the modules C2, D, E, F, or G set out in Annex III of the Directive. In all cases a notified body has to be involved. In the following the modules are described very briefly.

Module C2 is based on picking samples statistically from production by the notified body and the subsequent verification of parameters meaningful for quality and verification of agreement of the sample with the approved type. Module C2 requires the manufacturer to have internal quality control. Picking samples is in the responsibility of the notified body. Costs for testing of one explosive depend on the type of explosive and could range between 700,- € and 5000,- €. Module C2 is most suitable for intermediate products and for explosives with a very simple design.

Modules D and E are based on inspections of quality control measures of the manufacturer. An inspection takes place every 2 to 3 years, which takes usually 1 to 2 days at the production site. Where the manufacturer has a quality control system in agreement with ISO 9001 in place, this can support the assessment process. Costs are around 1000,- to 2000,- € per day of inspection plus travel expenses.

Modules F and G are based on an individual inspection of each explosive manufactured and are of little relevance.

The European Commission has published a guidance⁴, which further details obligations of the manufacturer, importer, and authorised representative.

EU type examination certificates issued by BAM are usually in German language. A bilingual version with German and English is available on request. On successful type examination the type examination certificate is joined by 2 Annexes (identification, handling instructions), plus the confidential examination report and the confidential assessment report.

In case of further questions please address these to:

Dr. A. von Oertzen
 Tel. +49 - 30 - 8104 3478
 email: alexander.von_oertzen@bam.de

⁴ The 'Blue Guide' on the implementation of EU product rules, zu finden im Internet auf ec.europa.eu