Pyrotechnic and Energetic materials

TÜV Rheinland InterCert Ltd. (NB 1008) as an international Notified Body and competence center within TÜV Rheinland Group provides expertise, inspection and certification activities in specific and dangerous fields, such as testing and certification of pyrotechnic articles and energetic materials.

We base our prosperity on customer satisfaction with safety as our number one priority:

- Our engineers, certifiers have decades of experience in the fields of design, manufacturing and qualification of pyrotechnic articles/explosives.
- International Notified Body with world-wide network and unique service.
- Testing facilities in EU and China as well, direct access to Chinese manufacturers and European importers.

The CE 1008 marking placed on products certified by TÜV Rheinland (NB 1008) is unconditionally accepted in the EU member states and mutually accepted by USA customers and authorities. TÜV Rheinland is the synonym of quality is well known worldwide. Such products as pyrotechnic articles (e.g. fireworks) and energetic materials (e.g. explosives) considered as hazard products, as during the usage, transportation and storage there is a high risk of accidental performance that can cause accidents, destroy the human health, material properties and natural surroundings. Thus they have to go through the below described testing and certification process - in case of conformance – it is allowed to affix CE 1008 marking onto the product that ensures the legal distribution and widely acceptance by buyers and supervisory authorities.

**PYROTECHNIC ARTICLES**

Pyrotechnic articles manufactured in or imported to the EU have to comply with the 2007/23 EC directive and EU Decision No. 768/2008 EC. Product testing and certification can be requested by the manufacturer or the authorized agent of the manufacturer (importer), hereinafter called applicant.

Directive 2007/23 EC sets a module system, prescribes EC Type Certificate (MODULE B) is fundamental and has to be combined with another Module according to preference and opportunity. Scope of testing and certification: F1, F2, F3, F4, P1, P2, T1, T2 category of pyrotechnic articles

**EC TYPE EXAMINATION AND TYPE CERTIFICATE (MODULE B)**

Applicant has to submit pyrotechnic article for EC Type examination and Type certification, which verifies that the product type fulfills the basic safety requirements described in 2007/23 EC, the technical and independent evaluation and assessment made by NB 1008. Type certificate has no validity deadline, but only valid for the requested certain family type.

**CONFORMITY TO TYPE TEST AND CERTIFICATE (MODULE C)**

Applicant submits pyrotechnic article for Conformity to type testing and certification, if there is a certain amount of fireworks (lot) they want to place onto the market. Certificate is valid only for a certain quantity of products (lot) requested by applicant, time of validity is maximum 3 years from the date of production.

**CERTIFICATION ON THE BASIS OF MANUFACTURING QUALITY ASSURANCE (MODULE D)**

Applicant undertakes to maintain an approved quality system for production, regularly control the manufacturing process and articles already have Type certificate.

NB 1008 as an independent body periodically supervises this activity in order to make certain and ensure that the control of manufacturing process is carried out in a high quality level that ensures safety products acc. to 2007/23 EC directive. Certification on the basis of manufacturing quality assurance has a validity date that can be extended, according to the results of the periodically surveillance audit.

**CERTIFICATION BASED ON PRODUCT QUALITY ASSURANCE (MODULE E)**

Applicant operates an approved quality system for final pyrotechnic article inspection and testing. The system for final product verification is able to determine, control and handle conform and non-conform products by batch. In case of conformance CE marking can be affixed onto the product with NB 1008 number. Certification based on product quality assurance has a validity date that can be extended, according to the results of the yearly supervision audit.

**ENERGETIC MATERIALS**

Energetic materials, e.g. explosives manufactured in or imported to the EU have to comply with the 1993/15 EEC directive and EU Decision No. 768/2008 EC. Scope of testing and certification: civil explosives.

The Module System described above is applicable for the explosives as well. The only difference is that it is not possible to group products into families.

Necessary documentation:

- Application form
- Declaration of Conformity
- Technical Data Sheet (TDS)
- Quality management system documentation: QMS handbook, working procedures (Optional, only at MODULE D and MODULE E certification.)

**CLASSIFICATION APPROVAL OF FIREWORKS BEFORE TRANSPORT**

International carriage of dangerous goods (like fireworks or explosives) by road (ADR) is allowed if it is verified that they fulfill the basic transportation safety requirements, they were classified into an ADR category that shows the riskiness of product handling and transportation.

ADR classification can be requested based upon testing (acc. to Manual of Test and Criteria) or based upon a detailed review of Technical Data Sheet of product.

Necessary documentation:

- Application form
- Technical Data Sheet
- Certificate of packaging

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