

ATEX

ATmosphères EXplosibles

Testing and Certification on equipment and protective systems intended to be used in Potentially Explosive Atmospheres

Eurofins TECH is appointed as Notified Body (ExNB 0477) to carry out conformity assessment as specified in the ATEX Directive, on behalf of European Union

The European Directive 94/9/CE, ATEX, has been acknowledged in SEE starting from July the 1st, 2003 – even if published in 1994.– This Directive applies to products, as specified below, intended to be used in potentially explosive atmospheres.

When the ATEX Directive became into force, previous rules and standards on the subject were abrogated. Therefore, starting from 01/07/2003, products not in conformity to the requirements of ATEX Directive are forbidden to be put into the market..

Following products are considered in the scope of the ATEX Directive:

- Equipments, separately or jointly, included vehicles intended to be used in potentially explosive atmospheres
- Protections systems, different by components, separately placed on the market, intended to halt incipient explosions;
-
- Components, as any item essential to the safe functioning of equipment and protective systems but with no autonomous function;

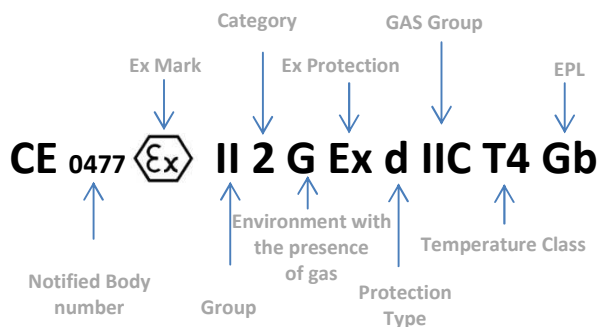
- Safety devices, controlling devices and regulating devices intended for use outside potentially explosive atmospheres. but required for or contributing to the safe functioning of equipment and protective systems with respect to the risks of explosion



Eurofins TECH is able to perform the tests needed to verify the conformity of products to the current harmonized standards. We deliver both ATEX and IECEx certification according to requirements of European ATEX regulations and international IEC standards (IECEx scheme).



On the marking string appearing on the product must be indicated the number of the Notified body that have carried out the factory production control



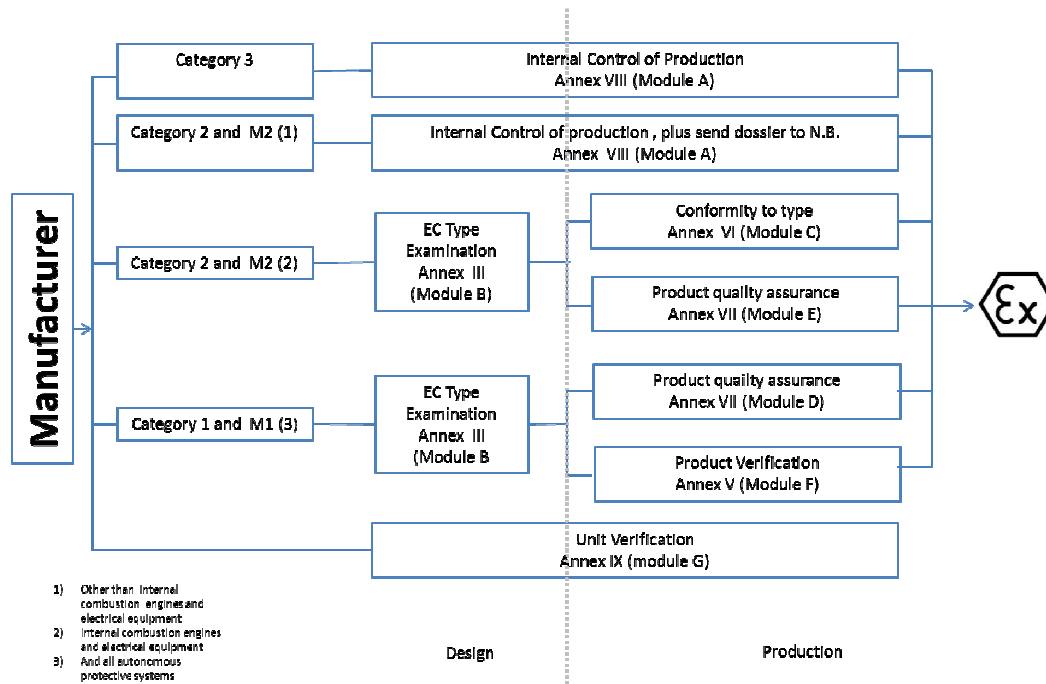
Example of ATEX Marking

- Certification Scheme

In the certification scheme, the "category" defines the degrees of protection provided by the equipment:

Category 3: suitable for normal operating condition
 Category 2: suitable even under fault conditions expected
 Category 1: suitable even under fault conditions rare

Category for mine:
Category M1: suitable even under fault conditions rare
Category M2: suitable for normal or heavy



Eurofins TECH scope:

Eurofins TECH is a testing laboratory and notified Body for all protection type.

Following some example:

- Flameproof enclosures "d"
- Tight dust enclosures "t"
- Intrinsic safety equipments "i"
- Encapsulated equipments "m"
- Electrical devices with "n" protection mode (cat. 3)
- Pressurized enclosures "p"
- Powder filling enclosures "q"
- Oil immersed devices "o"
- Electrical devices with "nR" protection mode (cat. 3)
- Equipments protected by Constructional safety "c"
- Equipments protected by liquid immersion "k"
- Explosion venting devices (vent)
- Flame arresters
- Electrostatic spraying guns

Main tests carried out in our laboratory

- Flameproof enclosures "d", vents and flame arresters
- Mechanical test
- Torque tests for cable and connectors
- Torque tests for bushings
- Tests for degrees of protection (IP)
- Climatic test
- Pressure tests for "p", "q", "d" modes of protection
- Spark-test apparatus for intrinsic safety devices "i"
- Surface resistance test on PCB
- Tests on intrinsic safe battery pack
- Dielectric strength test
- Electrostatic Testing
- Electrostatic spraying guns for liquid and powder coatings (explosion and/or shunt tests)