

ATEX is the term used when referring to the European Unions (EU) Directive 94/9/EC.

The ATEX Directive main objectives are to guarantee the free circulation of goods within the European Union by aligning the technical and legal requirements of the Member States.

The Directive Covers:

- Equipment and products that have potential ignition sources.
- Protective Systems - products that control the effects of incipient explosions.
- Safety Devices - products that may be outside a potentially explosive atmosphere but that have an explosion safety function.
- Components - products that are intended to form parts of equipment or protective systems.

The Directive only applies where there is equipment which introduces energy into the hazardous area such as electrical equipment which introduces electrical energy or mechanisms introducing mechanical energy. It is not intended to apply to locations where there is no equipment. Therefore, the interior of storage tanks or vessels would not be covered unless there was equipment present.

Equipment and protective systems used outside the hazardous area but which contributes to safety in the hazardous area (sometimes known as associated equipment) is also covered. This includes barriers for intrinsically safe circuits, control systems of explosion suppression, inerting and decoupling systems.

**ATEX 95 Directive 94/9/EC
Equipment Classification**

The directive does not use Zone numbers in the classification of hazardous areas, preferring to refer to their definitions (e.g. ‘An area where an explosive atmosphere occurs frequently or continuously’ for Zone 0) but it is useful to understand the classification system commonly used to describe areas where explosive atmospheres may occur. Usually, a series of zones based on the likelihood of presence of an explosive atmosphere are defined (the following are based on BS EN 60079-10: 2003):

Zone for gases, vapour and mists	Zone for combustible dusts	Conditions
0	20	Explosive atmosphere will be present continuously
1	21	Explosive atmosphere will be present some of the time (e.g. due to operational reasons)
2	22	Explosive atmosphere may be present (e.g. in the event of a fault)

Equipment is selected on the basis of its suitability for use in these conditions. There is a sub-division which separates equipment for use in mines from all other equipment. The full list of categories are as follows:

Category	Description
M1	Equipment intended for mining use and is required to remain functional in the presence of an explosive atmosphere.
M2	Equipment intended for mining use, but is intended to be de-energised in the event of an explosive atmosphere.
1G	Non-mining equipment for use in Zone 0
2G	Non-mining equipment for use in Zone 1
3G	Non-mining equipment for use in Zone 2
1D	Non-mining equipment for use in Zone 20
2D	Non-mining equipment for use in Zone 21
3D	Non-mining equipment for use in Zone 22

Under the ATEX directive (94/9/EC), any product intended for use in potentially explosive atmospheres must bear the ATEX “CE” mark and be affixed under the auspices of an EC Notified Body.

See area on DSEAR for further Hazardous Area Equipment Selection Guides

ATEX 137 Directive 99/92/EC

The Directive covers the use of equipment in potentially explosive atmospheres and its aim is to establish minimum requirements for improving the safety and health of workers

The article defines the:

- Obligations of the employees regarding the prevention and protection against explosions.
- Assessment obligations with regards to the assessment of explosion risks.
- General obligations regarding the safety and health of worker.
- Requirements for explosion protection documents