

ATEX

The objective of directive 94/9/EC is to ensure free movement of the products to which it applies in the EU territory. Therefore the directive, based on Article 95 of the EC Treaty, provides for harmonised requirements and procedures to establish compliance.

On 1 July 2003, two ATEX directives became mandatory:

- **The ATEX Directive 94/9/EC**, which applies to equipment manufacturers and harmonizes the technical and legal standards to which equipment for use in potentially explosive atmospheres is manufactured.
- **The ATEX Directive 99/92/EC**, which applies to end-users and requires a complete, documented analysis to be conducted on sites that may have a potentially explosive atmosphere and that only ATEX certified electrical, mechanical and safety related systems are installed.

The Directive 99/92/EC states that it is the responsibility of the user/employer to assess and classify the working environment as to whether there is a risk of there being explosive atmosphere, taking into account at least the following:

- the likelihood that explosive atmospheres will occur and their persistence.
- the likelihood that ignition sources, including electrostatic discharges, will be present and become active and effective.
- the installations, substances used, processes and their possible interactions.
- the scale of the anticipated effects.

In short, the first step is to determine whether the risk is due to gas or dust, the second step is to determine the classification zone.



ATEX marking

Norclean Line ATEX approved products are normally classified as:



II 2 GD c IIC 60°C (T6)

Equipment Group

I-Mining - **II** - Non-Mining

Equipment Category

Category	Gas Zone	Dust Zone
1	0	20
2	1	21
3	2	22

Classification zones for GAS

Zone 0: An area where an explosive atmosphere is continually present or present for long periods of time, for example inside liquid fuel tanks.

Zone 1: An area where an explosive atmosphere is present in normal operation but not continually, for example refuelling areas.

Zone 2: An area where an explosive atmosphere is not likely to occur in normal operation and if it does occur it will exist only for a short time, for example storage areas of solvent in sealed drums.

Classification zones for DUST

Zone 20: Place in which an explosive atmosphere in the form of a cloud of combustible dust in the air is present continuously, or for long periods of time or frequently.

Zone 21: Place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation occasionally.

Zone 22: Place in which an explosive atmosphere in the form of a cloud of combustible dust in the air is not likely to occur in normal operation, but if it does, will persist for a short period only.

Type of explosive atmosphere

G - Gas, vapour and mist - **D** - Dust

Protection method

c - Protection by constructional safety (c) prEN 13463-5: Non-electrical equipment for use in potentially explosive atmospheres

Gas/Dust group

II B Gas group B

II C Gas group C

B-Ethylene (<60µJ Ignition Energy)

C-Hydrogen and Acetylene (<20µJ Ignition Energy)

Dust Temperature Classification

60°C - Maximum Surface Temperature

Gas Temperature Classification

T6 - 85°C Maximum Surface Temperature

Norclean line ATEX products supplied with PE or PUR antistatic hoses are compliant with Gas Group II C (highest class). The PVC or standard PUR hoses are only compliant with gas Group II B.

The ATEX approved Norclean Line range are all made of conductive and antistatic material, to comply with the ATEX directive 94/9/EC, and can be used in explosion hazardous category 2 and 3 areas.