

Our promise - your safety!



Storing hazardous substances will always create a certain risk and can be stressful for the personnel. Factors such as noise, fatigue, time pressure or staff shortages, can increase the stress and cause errors to happen. Any error in environment with highly explosive/flammable substances can have far bigger consequences than in normal circumstances.

In order to protect your staff, goods and equipment it is crucial to choose the safest device on the market and as it happens we have just what you need. Don't choose second best for life might depend on it!

Our LABEX® models are the safest explosion-proof devices on the market. The interior of the devices is tested for absence of ignition sources by TÜV SÜD in conformity with Directive ATEX 2014/34/EU. KIRSCH was the first company in the laboratory cooling sector to adapt this new ATEX product directive.

LABEX® devices

INTRINSIC SAFETY



Protected probes
The probes are protected via safety barriers



Explosion-proof fan
with ATEX power cable and energy limiting power supply



CONSTRUCTIVE SAFETY



Earthing concept
The user is grounded as soon as the door handle is touched. Static charge is discharged into the housing



No spark formation
caused by moving parts (shelves or conductive drawers)

With our LABEX® devices, we guarantee maximum temperature stability in **explosion-proof interior**. All of the electrical equipment and components used in the interior (fans, temperature sensors, etc.) are specifically designed for use in zone 1* and zone 2.

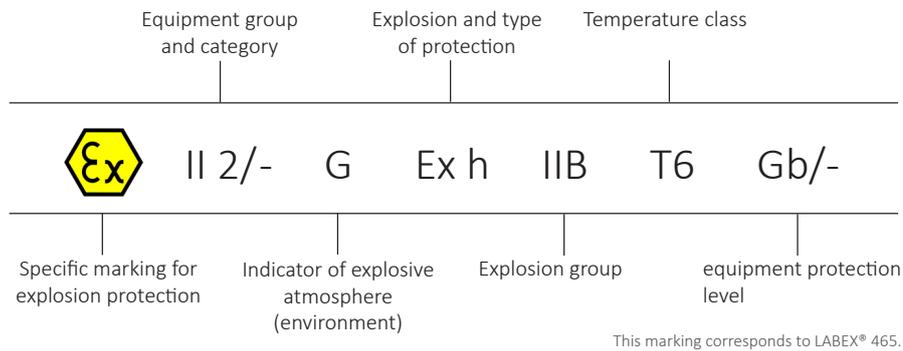
*LABEX® 465



ZONE 1

For usage in more demanding environment and storage of highly flammable/explosive substances, we offer even safer unique Zone 1 devices. Though without of internal fan, the units offer remarkably good temperature homogeneity.

Understanding ATEX marking



Important notice

We recommend to always consider the following EX marking when purchasing a new laboratory refrigerator or freezer with an explosion-proof interior:

- **Equipment group and category: II 3** (Normal level of safety)
- **Type of protection: h** (Constructive safety)
- **Equipment protection level: Gc** (Normal level of safety)

With the LABEX® 465 model for Zone 1, we offer you the highest protection standard:

- **Equipment group and category: II 2** (High level of safety)
- **Equipment protection level: Gb** (High level of safety)

ATEX marking of KIRSCH LABEX® devices

	 II 3/- G Ex h IIB T6 Gc/- (all LABEX® devices except LABEX® 465)	 II 2/- G Ex h IIB T6 Gb/- (LABEX® 465)
Equipment group II	Installations in all EX areas outside the mining industry	Installations in all EX areas outside the mining industry
Equipment category 3 or 2	Normal level of protection and therefore increased level of safety	High level of protection and therefore high level of safety
Explosive atmosphere G	Vapors and gases	Vapors and gases
Type of ignition protection h	Ignition source monitoring, constructive safety, liquid immersion	Ignition source monitoring, constructive safety, liquid immersion
Explosion group IIB	Gas explosion group: ethylene	Gas explosion group: ethylene
Temperature class T6	Ignition temperature range >85°C to ≤ 100°C; Permissible surface- temperature: 85°C	Ignition temperature range >85°C to ≤ 100°C; Permissible surface- temperature: 85°C
Equipment protection level Gc or Gb	G = gases and vapors; c = normal degree of protection and therefore normal level of safety	G = gases and vapors; b = higher level of protection and therefore high level of safety

Conformity statement

KIRSCH is a specialist in the safe and precise storage of flammable substances. We offer laboratory refrigerators and freezers with explosion-proof interiors for application in the explosion protection zone 1 or 2 according to ATEX Directive 2017/34/ EU. We stand behind our 100% safety guarantee of our products when used as intended. Our LABEX® models are designed to fulfill the strictest safety standards. The TÜV-certified safety concept with a technical report protects contents and operating personnel alike.



For your safety

When handling highly flammable substances always make sure that appropriate EX protection is provided. Lack of EX protection or the selection of the wrong equipment can have severe consequences.



Liability according to ATEX operator- and product guidelines

According to the ATEX operating directive, the plant operator is responsible for the correct selection of the equipment. For the determination of the suitable EX zone (e.g Zone 1, Zone 2), following explosion hazards, among other things, have to be taken into consideration: the explosiveness of the stored substances and the frequency of occurrence of an explosive atmosphere. We will gladly assist you in selecting the correct explosion protected device.

KIRSCH - pioneer in EX-protection with the LABEX® trade mark



EX zones definition

Zone 1: Area in which an explosive atmosphere consisting of a mixture of air with flammable substances in the form of gas, vapor or mist occurs during normal operation.

Zone 2: A place in which an explosive atmosphere consisting of a mixture of air with flammable substances in the form of gas, vapor or mist is not likely to occur in normal operation. If it does, then only rarely and only for a short period of time.