

EX EXPLAINED

A ATEX MARKING							
C E 0598	×3	I	M1	1	Ш	1	GD
CE mark denotes manufacturers' declaration of product compliance to all relevant EU Directives	Specific mark for Explosion Protection	Equipment Group (Mining)	Equipment Category (Mining)		Equipment Group (Industrial)	Equipment Category (Industrial)	Defines suitability of use of Group II
0598 = Number of Notified Body responsible for EU monitoring of production quality							equipment in gas and/ or dust atmospheres

EQUIPMENT GROUP & EQUIPMENT CATEGORY

	ATEX	ATEX Equipment Category	IEC/EN 60079-0	Permissible	
	Equipment Group		Equipment Protection Level	Hazard Group	Area of Use
	I	M1	Very high protection (Ma)		Energised in Ex atmosphere
		M2	High protection (Mb)	1	De-energised in Ex atmosphere
Industrial Gas, Vapour & Mist Hazards	11	1G	Very high protection (Ga)		Zones 0,1,2
		2G	High protection (Gb)	Ш	Zones 1,2
		3G	Normal protection (Gc)		Zones 2
		1D	Very high protection (Da)		Zones 20,21,22
Industrial Dust Hazards		2D	High protection (Db)	ш	Zones 21,22
		3D	Normal protection (Dc)		Zones 22

REA CLASSIFICATION

Area Clas	rea Classification Zone Criteria		
Gases	Dusts		CLASSIFICATION OF
Zone 0	Zone 20	present continuously, for long periods (>1000hrs per annum) or frequently	HAZARDOUS AREAS To EN/IEC 60079-10 Hazardous areas are classified into zones on
Zone 1	Zone 21	likely to occur in normal operation, occasionally (>10hrs, <1000hrs per annum)	the basis of the frequency and duration of the occurrence of an explosive
Zone 2	Zone 22	unlikely to occur in normal operation, if it does will only be for short periods (<10hrs per annum)	atmosphere. Durations on table are typical.

IRECTIVES AND SCHEMES

ATEX EQUIPMENT DIRECTIVE 'CE' marking is used within the European Union to identify products that comply with all relevant EC/EU Directives,

with the aim of promoting free trade and regulating safety. Only equipment that is 'CE' marked compliant with the ATEX Equipment Directive may be sold for use in potentially explosive atmospheres within the EU. The Directive scope includes electrical and mechanical equipment for use in mining and industrial applications, both on and offshore and considers risks of ignition from potentially explosive gas, vapour, mist and dust atmospheres. Compliance of products to the ATEX Equipment Directive, through conformity assessment, is generally in two stages: design and production. A common route to product design compliance

is by meeting the requirements of all relevant Harmonised EN standards. The ATEX Directive requires that latest advancements in technical knowledge and 'state-of-the-art' thinking are

implemented without delay, so Harmonised EN standards can change regularly. Manufacturers of equipment for safe use in potentially explosive atmospheres are under a legal responsibility to ensure timely compliance with any such changes affecting their products; in some cases this may result in

re-design and re-certification. Once compliance with the relevant Directives is complete and the manufacturer has issued the EC/EU Declaration

of Conformity, the 'CE' mark is applied and the product placed on the market. ATEX Equipment Directive 94/9/EC was repealed on 19 April 2016, ATEX Directive 2014/34/EU became applicable from

20 April 2016. This is the result of a legislative realignment and had limited relevance to the manufacturer or user, other than requiring the EC/EU Declaration of Conformity to refer to the correct Directive on the relevant date.

IECEX CERTIFICATION SCHEME

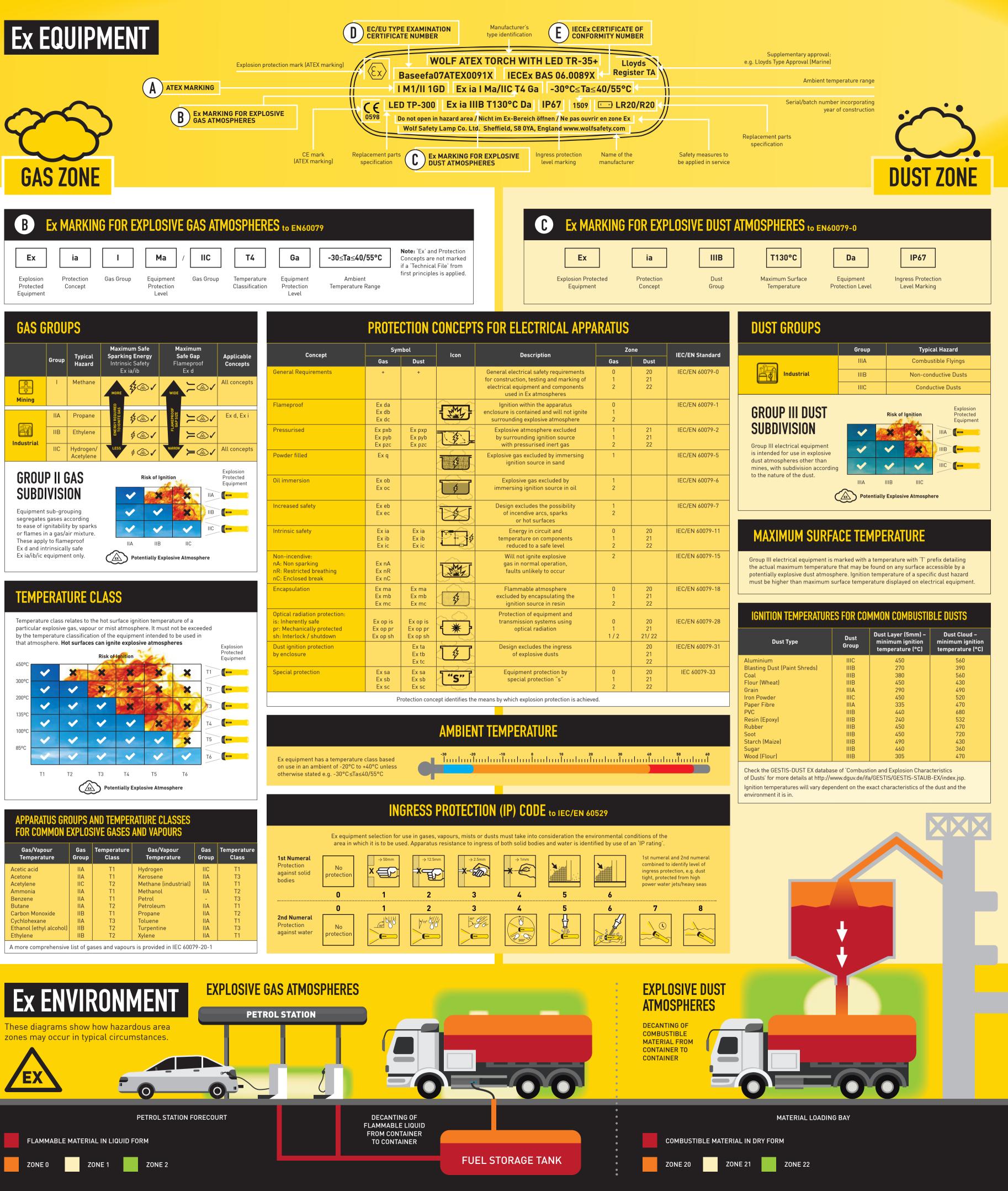
The objective of the IECEx Certification Scheme is to facilitate international trade in equipment for use in explosive atmospheres, while maintaining the required level of safety and international confidence in the product assessment process. Equipment certification is achieved by meeting relevant international IEC standards (mirror standards to those used in ATEX) and results in access to over 30 member countries that accept the Scheme (subject to national deviations). IECEx is a "live" scheme with a database listing all current product certificates published online.

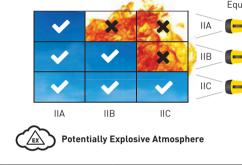
ATEX WORKPLACE DIRECTIVE & DSEAR

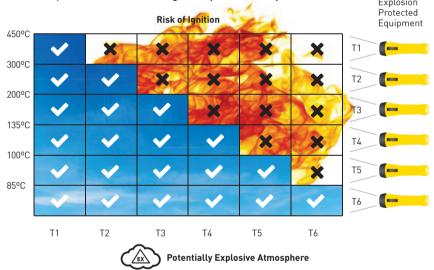
The 99/92/EC ATEX Workplace Directive is a legal framework providing protection for property and workers in potentially explosive gas, vapour, mist and dust atmospheres within the EU. It lists a set of obligations and safety measures for employers, requiring the adoption of a coherent risk assessment based strategy for the prevention of explosions. In the UK the ATEX Workplace Directive has been implemented as an element of The Dangerous Substances and Explosive Atmospheres Regulation 2002 (DSEAR).











			AND VAPOURS		
Gas/Vapour Temperature	Gas Group	Temperature Class	Gas/Vapour Temperature	Gas Group	Temperatur Class
Acetic acid	IIA	T1	Hydrogen	IIC	T1
Acetone	IIA	T1	Kerosene	IIA	T3
Acetylene	IIC	T2	Methane (industrial)	IIA	T1
Ammonia	IIA	T1	Methanol	IIA	T2
Benzene	IIA	T1	Petrol	-	Т3
Butane	IIA	T2	Petroleum	IIA	T1
Carbon Monoxide	IIB	T1	Propane	IIA	T2
Cychlohexane	IIA	T3	Toluene	IIA	T1
Ethanol (ethyl alcohol)	IIB	T2	Turpentine	IIA	Т3
Ethylene	IIB	T2	Xylene	IIA	T1

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KEY	
	Explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist, or a cloud of combustible dust in air.
4	Spark
	Ignition
۲	Flameproof flange gap on Ex d equipment

etailing ble by a st hazard equipment.	

Dust Cloud – nimum ignition nperature (°C)
560
390
560
430
490
520
470
680
532
470
720
430
360
470



D EC/EU TYPE EXAMINATION CERTIFICATE NUMBER

$\overline{(\varepsilon_{\chi})}$	Baseefa	07	ΑΤΕΧ	0091	x		
	Notified body responsible for EC/ EU-Type Examination (Test House)	Year Certificate Issued	ATEX Certificate	Serial Number	Certificate Number Suffix		
X Suffix denotes special conditions of certification – refer to certificate. U Suffix denotes Ex component approval.							

E IEC		FICATE OF (
ÎEĈE X	IECEx	BAS	06	0089	x
TM	IECEx Certificate	ExCB – IECEx Certification Body	Year Certificate Issued	Serial Number	Certificate Number Suffix

NOTIFIED BODIES

ATEX Notified Body

Notified Bodies are appointed by governments of individual EU countries as responsible to carry out functions specified in the ATEX Equipment Directive, such as EU type examination of equipment and quality assurance assessment of equipment production.

IECEx Certification Body (ExCB)

Organisations successfully completing the IECEx assessment process are approved to operate within the IECEx Certified Equipment Scheme and to issue IECEx Test Reports (ExTRs), IECEx Quality Assessment Reports (QARs) and the Online Certificate of Conformity.

SGS Baseefa is responsible for the quality assurance assessment of equipment manufactured by the Wolf Safety Lamp Company and, under ATEX, is identified by the notified body number (0589) below the CE mark on Wolf products.

RESOURCES AND STANDARDS

ADDITIONAL RESOURCES

The 2014/34/EU ATEX Equipment Directive may be found on the following website: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0034&from=EN The 99/92/EC ATEX Workplace Directive may be found on the following website: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=0J:L:2000:023:0057:0064:EN:PDF A copy of the DSEAR regulations is available at: http://www.hmso.gov.uk/si/si2002/20022776.htm A guide to DSEAR, published by the Health and Safety Executive can be downloaded at:

http://www.hse.gov.uk/fireandexplosion/dsear.htm

IECEx System website: **www.iecex.com**

ASSOCIATED STANDARDS Explosive Atmospheres. Explosion prevention & protection

Basic concepts and methodology Electrical equipment for use in potentially explosive atmospheres Classification of areas – Explosive Gas Atmospheres Classification of areas – Explosive Dust Atmospheres **Electrical installations** Inspection and maintenance of electrical installations Material characteristics, gases and vapours, test methods and data Standards available from: British Standards Institution,

369 Chiswick High Road, London W4 4AL www.bsigroup.com

EN 1127-1

IEC/EN 60079-10-1 IEC/EN 60079-10-2 IEC/EN 60079-14 IEC/EN 60079-17 IEC/EN 60079-20-1

This guide is provided to aid in the selection of Wolf lighting products for use in potentially explosive atmospheres. Information given is based on practice with the EU, as specified in the requirements of the 94/9/EC - 2014/34/EU ATEX (Equipment) Directive and the 99/92/EC ATEX (Workplace) Directive with further practice outlined for international use within the IECEx Scheme. It is the user's responsibility to ascertain if a particular product is safe and without risk to healt and safety by virtue of its location in a hazardous area, i.e. classification of zones, gas groups, ignition temperatures, etc. Both the specifier and user should be thoroughly familiar with the standards mentioned in this guide. Whilst every care has been taken in the compilation of this document, the Company regrets that it cannot accept responsibility for any errors or omissions contained herein. Readers should not rely upon the information contained in this document withou seeking specific safety advice and ensuring that their own particular circumstances are in accordance with the matters set out.

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