







5.5 MARKING OF NON-ELECTRICAL EQUIPMENT

Type of protection	Symbol Standard	Zone	Main application	Standard
 Constructional safety "c"	h	0, 1, 2 20, 21, 22	Couplings, pumps, gear drives, conveyor belts	ISO 80079-37 EN ISO 80079-37
 Flameproof enclosure "d"	h	1, 2	Brakes, couplings	IEC 60079-1 EN 60079-1
 Pressurised enclosure "p"	h	1, 2 21, 22	Pumps	IEC 60079-2 EN 60079-2
 Liquid immersion "k"	h	0, 1, 2 20, 21, 22	Submerged pumps, gears,	ISO 80079-37 EN ISO 80079-37
 Control of ignition source "b"	h	0, 1, 2 20, 21, 22	Pumps, conveyor belts	ISO 80079-37 EN ISO 80079-37
 Protection via enclosure "t"	h	20, 21, 22	Equipment exclusively for dust explosion hazardous areas	IEC 60079-31 EN 60079-31

Type of protection

Ex II 2G Ex h IIC T6 Gb

Firedamp-endangered areas		
Group I		Methane
Gas explosion hazardous areas		
Group II	IIA IIB IIC	Propane Ethylene Hydrogen
Dust explosion hazardous areas		
Group III	IIIA IIIB IIIC	Combustible lint Non-conductive dust Conductive dust

Max. surface temperature

Gas explosion hazardous areas: Temperature classes	
450 °C	T1
300 °C	T2
200 °C	T3
135 °C	T4
100 °C	T5
85 °C	T6
Dust explosion hazardous areas: Surface temperature	
T ... °C (Example: T 80°C)	

ATEX marking

Equipment group I: mining; Equipment group II: other areas

Classification	Zone 0	Zone 20	Zone 1	Zone 21	Zone 2	Zone 22	Mining
Hazardous explosive atmosphere	Constantly, frequently or long-term		Occasionally		Seldom and short-term		
Equipment category	1G	1D	2G	2D	3G	3D	M1 or M2

Equipment category and equipment protection level (EPL)

Classification	Zone 0	Zone 20	Zone 1	Zone 21	Zone 2	Zone 22	Mining
EPL (IEC/EN 60079-0)	Ga	Da	Gb	Db	Gc	Dc	Ma or Mb