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Supersedes
DIN EN 1710:2008-08

Explosive atmospheres – Part 38: Equipment and components in explosive atmospheres in underground mines (ISO/IEC 80079-38:2016); English version EN ISO/IEC 80079-38:2016, English translation of DIN EN ISO/IEC 80079-38:2017-10

Explosionsfähige Atmosphären –
Teil 38: Geräte und Komponenten in explosionsfähigen Atmosphären in untertägigen Bergwerken (ISO/IEC 80079-38:2016);
Englische Fassung EN ISO/IEC 80079-38:2016,
Englische Übersetzung von DIN EN ISO/IEC 80079-38:2017-10

Atmosphères explosives –
Partie 38: Appareils et composants destinés à être utilisés dans les mines souterraines grisouteuses (ISO/IEC 80079-38:2016);
Version anglaise EN ISO/IEC 80079-38:2016,
Traduction anglaise de DIN EN ISO/IEC 80079-38:2017-10

Document comprises 66 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

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A comma is used as the decimal marker.

Start of application

The start of application of this standard is 2017-10-01.

National foreword

This standard includes safety requirements.

This document (EN ISO/IEC 80079-38:2016) has been prepared by Technical Committee IEC TC 31 "Equipment for explosive atmospheres" in collaboration with Technical Committee CEN/TC 305 "Explosive atmospheres" (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was *DIN-Normenausschuss Sicherheitstechnische Grundsätze* (DIN Standards Committee Safety Design Principles), Working Committee NA 095-02-10 AA "Explosion prevention and protection in mining and on combustion engines". Representatives of manufacturers and users of mining equipment, and of the mining authorities contributed to this standard.

The DIN Standards corresponding to the International Standards referred to in this document are as follows:

IEC/TS 60034-25	DIN VDE 0530-25 (VDE 0530-25)
IEC 60079-0	DIN EN 60079-0 (VDE 0170-1)
IEC 60079-1	DIN EN 60079-1 (VDE 0170-5)
IEC 60079-5	DIN EN 60079-5 (VDE 0170-4)
IEC 60079-6	DIN EN 60079-6 (VDE 0170-2)
IEC 60079-7	DIN EN 60079-7 (VDE 0170-6)
IEC 60079-11	DIN EN 60079-11 (VDE 0170-7)
IEC 60079-14	DIN EN 60079-14 (VDE 0165-1)
IEC 60079-18	DIN EN 60079-18 (VDE 0170-9)
IEC 60079-20-1	DIN EN 60079-20-1 (VDE 0170-20-1)
IEC 60079-25	DIN EN 60079-25 (VDE 0170-10-1)
IEC 60079-28	DIN EN 60079-28 (VDE 0170-28)
IEC 60079-32-2	DIN EN 60079-32-2 (VDE 0170-32-2)
IEC 60204-1	DIN EN 60204-1 (VDE 0113-1)
IEC 60204-11	DIN EN 60204-11 (VDE 0113-11)
IEC 60332-1 (all parts)	DIN EN 60332-1 (VDE 0482-332-1) (all parts)
IEC 60529	DIN EN 60529 (VDE 0470-1)
IEC 61508-3	DIN EN 61508-3 (VDE 0803-3)
IEC 62061	DIN EN 62061 (VDE 0113-50)
ISO 281	DIN ISO 281
ISO 284	DIN EN ISO 284
ISO 340	DIN EN ISO 340
ISO 1817	DIN ISO 1817
ISO 2592	DIN EN ISO 2592
ISO 4413	DIN EN ISO 4413
ISO 4414	DIN EN ISO 4414
ISO 4589-2	DIN EN ISO 4589-2
ISO 7010	DIN EN ISO 7010
ISO 12100	DIN EN ISO 12100
ISO 12922	DIN EN ISO 12922
ISO 13732-1	DIN EN ISO 13732-1
ISO 13849-1	DIN EN ISO 13849-1

ISO 14916	DIN EN ISO 14916
ISO 14935	DIN EN ISO 14935
ISO 15029-1	DIN EN ISO 15029-1
ISO 20823	DIN EN ISO 20823
ISO 80079-36:2016	DIN EN ISO 80079-36:2016-12
ISO 80079-37:2016	DIN EN ISO 80079-37:2016-12

Amendments

This standard differs from DIN EN 1710:2008-08 as follows:

a) normative references have been updated, in particular references to CEN/CENELEC and their publications in references to internationally available publications have been amended;

b) terms and definitions have been supplemented;

c) in 4.4.3.2, 5.3.1.5, 5.3.2 and in Table 1 of the German version of this standard, the German translation has been corrected;

d) the ignition hazard assessment has been included (paragraphs referring to mining equipment have been taken over from ISO 80079-36);

e) requirements for electric cable configurations have been extended;

f) requirements for impellers and impeller rings for fans have been extended;

g) requirements for diesel engines have been included;

h) requirements for brakes have been included;

i) requirements for optical fibres used on machines and electromagnetic radiation from components on/in machines have been included;

j) requirements for hydraulic and pneumatic equipment have been included;

k) requirements for cable-reeled equipment have been expanded;

l) marking of equipment has been changed in accordance with ISO 80079-36;

m) Annex C “Ignition sources” has been included;

n) Annex D “Guidance on potential risks for converter-fed motors” has been included;

o) Annex E “Tests for surface protective coating for group I hand tools of EPL Mb” has been included.

Previous editions

DIN EN 1710: 2006-01, 2008-08

National Annex NA
(informative)

Bibliography

DIN EN 60079-0 (VDE 0170-1), *Explosive atmospheres — Part 0: Equipment — General requirements*

DIN EN 60079-1 (VDE 0170-5), *Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures "d"*

DIN EN 60079-5 (VDE 0170-4), *Explosive atmospheres — Part 5: Equipment protection by powder filling "q"*

DIN EN 60079-6 (VDE 0170-2), *Explosive atmospheres — Part 6: Equipment protection by liquid immersion "o"*

DIN EN 60079-7 (VDE 0170-6), *Explosive atmospheres — Part 7: Equipment protection by increased safety "e"*

DIN EN 60079-11 (VDE 0170-7), *Explosive atmospheres — Part 11: Equipment protection by intrinsic safety "i"*

DIN EN 60079-14 (VDE 0165-1), *Explosive atmospheres — Part 14: Electrical installations design, selection and erection*

DIN EN 60079-18 (VDE 0170-9), *Explosive atmospheres — Part 18: Equipment protection by encapsulation "m"*

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DIN EN 60079-25 (VDE 0170-10-1), *Explosive atmospheres — Part 25: Intrinsically safe electrical systems*

DIN EN 60079-28 (VDE 0170-28), *Explosive atmospheres — Part 28: Protection of equipment and transmission systems using optical radiation*

DIN EN 60079-32-2 (VDE 0170-32-2), *Explosive atmospheres — Part 32-2: Electrostatics hazards — Tests*

DIN EN 60204-1 (VDE 0113-1), *Safety of machinery — Electrical equipment of machines — Part 1: General requirements*

DIN EN 60204-11 (VDE 0113-11), *Safety of machinery — Electrical equipment of machines — Part 11: Requirements for HV equipment for voltages above 1000 V a.c. or 1500 V d.c. and not exceeding 36 kV*

DIN EN 60332-1 (VDE 0482-332-1) (all parts), *Tests on electric and optical fibre cables under fire conditions*

DIN EN 60529 (VDE 0470-1), *Degrees of protection provided by enclosures (IP code)*

DIN EN 61508-3 (VDE 0803-3), *Functional safety of electrical/electronic/programmable electronic safety-related systems — Part 3: Software requirements*

DIN EN 62061 (VDE 0113-50), *Safety of machinery — Functional safety of safety-related electrical, electronic and programmable electronic control systems*

DIN EN ISO 284, *Conveyor belts — Electrical conductivity — Specification and test method*

DIN EN ISO 340, *Conveyor belts — Laboratory scale flammability characteristics — Requirements and test method*

DIN EN ISO 2592, *Petroleum products — Determination of flash and fire points — Cleveland open cup method*

DIN EN ISO 4413, *Hydraulic fluid power — General rules and safety requirements for systems and their components*

DIN EN ISO 4414, *Pneumatic fluid power — General rules and safety requirements for systems and their components*

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DIN EN ISO 7010, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

DIN EN ISO 12100, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

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DIN EN ISO 13732-1, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces*

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DIN EN ISO 14916, *Thermal spraying — Determination of tensile adhesive strength*

DIN EN ISO 14935, *Petroleum and related products — Determination of wickflame persistence of fire-resistant fluids*

DIN EN ISO 15029-1, *Petroleum and related products — Determination of spray ignition characteristics of fire-resistant fluids — Part 1: Spray flame persistance — Hollow-cone nozzle method*

DIN EN ISO 20823, *Petroleum and related products — Determination of the flammability characteristics of fluids in contact with hot surfaces — Manifold ignition test*

DIN EN ISO 80079-36:2016-12, *Explosive atmospheres — Part 36: Non-electrical equipment for explosive atmospheres — Basic method and requirements (ISO 80079-36:2016)*

DIN EN ISO 80079-37:2016-12, *Explosive atmospheres — Part 37: Non-electrical equipment for explosive atmospheres — Non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k" (ISO 80079-37:2016)*

DIN ISO 281, *Rolling bearings — Dynamic load ratings and rating life*

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DIN VDE 0530-25 (VDE 0530-25), *Rotating electrical machines — Part 25: Guidance for the design and performance of a.c. motors specifically designed for converter supply*

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO/IEC 80079-38

December 2016

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English Version

Explosive atmospheres - Part 38: Equipment and components in explosive atmospheres in underground mines (ISO/IEC 80079-38:2016)

Atmosphères explosives - Partie 38: Appareils et composants destinés à être utilisés dans les mines souterraines grisouteuses (ISO/IEC 80079-38:2016)

Explosionsfähige Atmosphären - Teil 38: Geräte und Komponenten in explosionsfähigen Atmosphären in untertägigen Bergwerken (ISO/IEC 80079-38:2016)

This European Standard was approved by CEN on 18 February 2016.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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