September 2020

DIN EN ISO/IEC 80079-20-1

ICS 29.260.20

Supersedes
DIN EN 60079-20-1
(VDE 0170-20-1):2010-09

Explosive atmospheres – Part 20-1: Material characteristics for gas and vapour classification – Test methods and data (ISO/IEC 80079-20-1:2017, including Cor 1:2018); English version EN ISO/IEC 80079-20-1:2019, English translation of DIN EN ISO/IEC 80079-20-1:2020-09

Explosionsfähige Atmosphären –
Teil 20-1: Stoffliche Eigenschaften zur Klassifizierung von Gasen und Dämpfen –
Prüfverfahren und Daten (ISO/IEC 80079-20-1:2017, einschließlich Cor 1:2018);
Englische Fassung EN ISO/IEC 80079-20-1:2019,
Englische Übersetzung von DIN EN ISO/IEC 80079-20-1:2020-09

Atmosphères explosives –
Partie 20-1: Caractéristiques des produits pour le classement des gaz et des vapeurs –
Méthodes et données d'essai (ISO/IEC 80079-20-1:2017, y compris Cor 1:2018);
Version anglaise EN ISO/IEC 80079-20-1:2019,
Traduction anglaise de DIN EN ISO/IEC 80079-20-1:2020-09

Document comprises 93 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.

National foreword

This standard includes safety requirements.

WARNING — Even below the ignition temperature determined according to this standard, additional ignitions of the samples inserted into the ignition vessel may be determined for compounds, in particular for oils, if air is blown into the ignition vessel after inserting the sample. This retarded ignition temperature can be more than 100 K lower than the ignition temperature determined according to this standard. For safety reasons, it is therefore advisable to check whether a retarded ignition temperature is given when determining the ignition temperature, in particular for oils.

The responsible German body involved in its preparation was *DIN-Normenausschuss Sicherheitstechnische Grundsätze* (DIN Standards Committee Safety Design Principles), Working Committee NA 095-02-09 AA "Test methods for determining the flammability characteristics of substances".

This document (EN ISO/IEC 80079-20-1:2019) has been prepared by Subcommittee IEC/SC 31M "Non-electrical equipment and protective systems for explosive atmospheres" in collaboration with Technical Committee CEN/TC 305 "Potentially explosive atmospheres — Explosion prevention and protection" (Secretariat: DIN, Germany).

The included ISO/IEC publication was prepared by IEC/SC 31M "Non-electrical equipment and protective systems for explosive atmospheres".

The ISO/IEC Committee has decided that the content of this publication shall remain unchanged up to the date mentioned with this publication on the IEC website (maintenance result date), available at http://webstore.iec.ch. At that time, according to the decision of the committee, the publication will be

— confirmed,

— withdrawn,

— replaced by a new edition or

— amended.

We kindly ask to also give DIN any comments you may have on the wording of the German translation.

The DIN documents corresponding to the international documents referred to in this document are as follows:

IEC 60079-11	DIN EN 60079-11
IEC 60079-14	DIN EN 60079-14

For current information on this document, please go to DIN's website (www.din.de) and search for the document number in question.

Amendments

This standard differs from DIN EN 60079-20-1 (VDE 0170-20-1):2010-09 as follows:

a) the standard has been fundamentally technically and editorially revised.

Previous editions

DIN EN 60079-20-1 (VDE 0170-20-1): 2010-09

National Annex NA
(informative)

Bibliography

DIN EN 60079-11, *Explosive atmospheres — Part 11: Equipment protection by intrinsic safety "i"*

DIN EN 60079-14, *Explosive atmospheres — Part 14: Electrical installations design, selection and erection*

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO/IEC 80079-20-1

October 2019

ICS 29.260.20

Supersedes EN 60079-20-1:2010

English Version

Explosive atmospheres - Part 20-1: Material characteristics for gas and vapour classification - Test methods and data (ISO/IEC 80079-20-1:2017, including Cor 1:2018)

Atmosphères explosives - Partie 20-1: Caractéristiques des produits pour le classement des gaz et des vapeurs - Méthodes et données d'essai (ISO/CEI 80079-20-1:2017, y compris Cor 1:2018)

Explosionsfähige Atmosphären - Teil 20-1: Stoffliche Eigenschaften zur Klassifizierung von Gasen und Dämpfen - Prüfverfahren und Daten (ISO/IEC 80079-20-1:2017, einschließlich Cor 1:2018)

This European Standard was approved by CEN on 8 January 2018.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 20 November 2019.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO/IEC 80079-20-1:2019 E

CONTENTS

European foreword

This document (EN ISO/IEC 80079-20-1:2019) has been prepared by Technical Committee ISO/TMB "Technical Management Board - groups" in collaboration with Technical Committee CEN/TC 305 “Potentially explosive atmospheres - Explosion prevention and protection” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 60079-20-1:2010.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO/IEC 80079-20-1:2017, including Cor 1:2018 has been approved by CEN as EN ISO/IEC 80079-20-1:2019 without any modification.

Annex ZA

(informative)

Relationship between this European Standard and the essential requirements of Directive 2014/34/EU aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/BC/CEN/92/46 to provide one voluntary means of conforming to essential requirements of Directive 2014/34/EU "Directive 2014/34/EU Of The European Parliament And Of The Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (recast)".

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 2014/34/EU

Essential Requirements of Directive 2014/34/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.0.1	All clauses	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

FOREWORD

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International Standard ISO/IEC 80079-20-1 has been prepared by subcommittee 31M: Non-electrical equipment and protective systems for explosive atmospheres, of IEC technical committee 31: Equipment for explosive atmospheres.

This first edition of ISO/IEC 80079-20-1 cancels and replaces IEC 60079-20-1:2010. It constitutes a technical revision. No significant changes were made with respect to IEC 60079-20-1:2010.

It is published as a double logo standard.