



**NSAI**  
Standards

Irish Standard  
I.S. EN 62877-2:2016

# Electrolyte and water for vented lead acid accumulators - Part 2: Requirements for water

**I.S. EN 62877-2:2016**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

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EN 62877-2:2016

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## National Foreword

I.S. EN 62877-2:2016 is the adopted Irish version of the European Document EN 62877-2:2016, Electrolyte and water for vented lead acid accumulators - Part 2: Requirements for water

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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EUROPEAN STANDARD

**EN 62877-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2016

ICS 29.220.20

English Version

**Electrolyte and water for vented lead acid accumulators -  
Part 2: Requirements for water  
(IEC 62877-2:2016)**

Electrolyte et eau pour accumulateurs plomb-acide ouverts -  
Partie 2: Exigences pour l'eau  
(IEC 62877-2:2016)

Elektrolyte und Wasser für geschlossene Blei-Säure-Batterien -  
Teil 2: Anforderungen an Wasser  
(IEC 62877-2:2016)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN 62877-2:2016**

**European foreword**

The text of document 21/875/FDIS, future edition 1 of IEC 62877-2, prepared by IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62877-2:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at (dop) 2016-12-02  
national level by publication of an identical national  
standard or by endorsement
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In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 62485-3	NOTE	Harmonized as EN 62485-3.
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## **Annex ZA**

(normative)

### **Normative references to international publications with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62877-1	-	Electrolyte and water for vented lead acid accumulators - Part 1: Requirements for electrolyte	EN 62877-1	-

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**IEC 62877-2**

Edition 1.0 2016-01

# **INTERNATIONAL STANDARD**

## **NORME INTERNATIONALE**

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**Electrolyte and water for vented lead acid accumulators –  
Part 2: Requirements for water**

**Électrolyte et eau pour accumulateurs plomb-acide ouverts –  
Partie 2: Exigences pour l'eau**



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**IEC 62877-2**

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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Electrolyte and water for vented lead acid accumulators –  
Part 2: Requirements for water**

**Électrolyte et eau pour accumulateurs plomb-acide ouverts –  
Partie 2: Exigences pour l'eau**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTROLYTE AND WATER FOR VENTED  
LEAD ACID ACCUMULATORS –****Part 2: Requirements for water****FOREWORD**

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International Standard IEC 62877-2 has been prepared by IEC technical committee 21: Secondary cells and batteries.

The text of this standard is based on the following documents:

FDIS	Report on voting
21/875/FDIS	21/882/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62877 series can be found, under the general title *Electrolyte and water for vented lead acid accumulators* on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## ELECTROLYTE AND WATER FOR VENTED LEAD ACID ACCUMULATORS –

### Part 2: Requirements for water

#### 1 Scope

This part of IEC 62877 applies to water for use with vented lead-acid cells and batteries, i.e. water for preparation of electrolyte and for topping up cells or batteries.

The purity of refilling water has to meet higher requirements compared to filling electrolyte, because the impurities in the operating electrolyte will be gradually increased by regular addition of water.

This international standard lays down requirements of the composition, purity and properties of water in the absence of specific recommendations from the manufacturer.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62877-1, *Electrolyte and water for vented lead acid accumulators – Part 1: Requirements for electrolyte*

#### 3 Terms and definitions

##### 3.1

##### **electrolyte**

diluted sulfuric acid ( $\text{H}_2\text{SO}_4$ ) for lead-acid accumulators. The electrolyte is prepared by mixing concentrated sulfuric acid or sulfuric acid with high density of  $d > 1,30 \text{ kg/l}$  and purified water to achieve the density values specified by the battery manufacturer or specified in standards related to the type and battery design in question for a defined state of charge

Note 1 to entry: Concentrated sulfuric acid is a colorless, high corrosive and etching liquid—with a density  $1,84 \text{ kg/l}$ .

##### 3.2

##### **water**

purified water ( $\text{H}_2\text{O}$ ) used for the preparation of electrolyte for batteries and for the replacement (topping up) of water loss in the operating electrolyte due to decomposition of water by overcharging and evaporation

##### 3.3

##### **reference temperature**

value specified by the battery manufacturer for the indication of properties, such as the nominal electrolyte density, the maximum electrolyte level and the nominal capacity of the battery. The value of the nominal temperature for the indication of parameters may differ depending on the battery type and application

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