



BSI Standards Publication

Secondary cells and batteries — Marking symbols for identification of their chemistry

This is a preview of BS EN IEC 62902:2025. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN IEC 62902:2025. It is identical to IEC 62902:2025. It supersedes BS EN IEC 62902:2019, which will be withdrawn on 30 April 2028.

The UK participation in its preparation was entrusted to Technical Committee PEL/21, Secondary cells and batteries.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
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EUROPÄISCHE NORM

April 2025

ICS 29.220.20; 29.220.30

Supersedes EN IEC 62902:2019

English Version

Secondary cells and batteries - Marking symbols for identification of their chemistry (IEC 62902:2025)

Batteries d'accumulateurs - Symboles de marquage pour
l'identification de leur caractéristique chimique
(IEC 62902:2025)

Sekundärbatterien - Symbole für die Kennzeichnung zur
Identifikation ihrer Chemie
(IEC 62902:2025)

This European Standard was approved by CENELEC on 2025-04-02. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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

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

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European foreword

The text of document 21/1195/CDV, future edition 2 of IEC 62902, prepared by TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62902:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2026-04-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-04-30

This document supersedes EN IEC 62902:2019 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 62902:2025 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60622	NOTE	Approved as EN 60622
IEC 61056 (series)	NOTE	Approved as EN 61056 (series)
IEC 61951-1	NOTE	Approved as EN 61951-1
IEC 61951-2	NOTE	Approved as EN 61951-2
IEC 62620:2014	NOTE	Approved as EN 62620:2015 (not modified)
IEC 62675	NOTE	Approved as EN 62675

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(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60896-21	2004	Stationary lead-acid batteries - Part 21: Valve regulated types - Methods of test	EN 60896-21	2004
IEC 60896-22	2004	Stationary lead-acid batteries - Part 22: Valve regulated types - Requirements	EN 60896-22	2004
IEC 61960-3	2017	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for portable applications - Part 3: Prismatic and cylindrical lithium secondary cells and batteries made from them	EN 61960-3	2017
ISO 7000	-	Graphical symbols for use on equipment - Registered symbols	-	-

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	10
4 Application of markings	12
4.1 General.....	12
4.2 Marking of electrochemical battery systems	12
4.3 Marking requirements for additional chemistry information of Li-ion batteries	13
4.4 Application of the markings on the battery.....	13
5 Markings.....	13
5.1 Markings without recycling symbol	13
5.1.1 General	13
5.1.2 Lead acid batteries	13
5.1.3 Nickel cadmium batteries.....	13
5.1.4 Nickel metal hydride batteries.....	14
5.1.5 Lithium ion batteries	14
5.1.6 Lithium metal batteries	14
5.2 Optional markings with recycling symbol	14
5.2.1 General	14
5.2.2 Lead acid batteries	14
5.2.3 Nickel cadmium batteries.....	15
5.2.4 Nickel metal hydride batteries.....	15
5.2.5 Lithium ion batteries	15
5.2.6 Lithium metal batteries	16
5.3 Background colours	16
5.4 Design of markings and symbols.....	16
5.4.1 General	16
5.4.2 Dimensions for symbols.....	16
5.4.3 Dimensions for markings without recycling symbol.....	17
5.4.4 Dimensions for markings with recycling symbol	18
5.4.5 Adaptive size.....	18
5.4.6 Design of the recycling symbol	19
5.4.7 Design of the letters (characters).....	19
5.4.8 Exception for marking with a single colour	20
6 Durability of markings with respect to chemical agents	20
6.1 General.....	20
6.2 Test procedure.....	21
6.2.1 General	21
6.2.2 Test with water and recommended cleaning agents	21
6.2.3 Test with electrolyte.....	21
6.2.4 Test with neutralizing solutions	21
6.3 Criteria.....	21
Annex A (informative) Colours for background	22
A.1 General.....	22
A.2 Colour definition for background	22

This is a preview of BS EN IEC 62902:2025. [Click here to purchase the full version from the ANSI store.](#)

Annex B (informative) Calculation method for the battery volume	23
Bibliography	24
Figure 1 – Example of marking for lead acid batteries	13
Figure 2 – Example of marking for nickel cadmium batteries	13
Figure 3 – Example of marking for nickel metal hydride batteries	14
Figure 4 – Example of marking for lithium ion batteries	14
Figure 5 – Example of marking for lithium metal batteries	14
Figure 6 – Example of marking with recycling symbol for lead acid batteries	14
Figure 7 – Example of marking with recycling symbol for nickel cadmium batteries	15
Figure 8 – Example of marking with recycling symbol for nickel metal hydride batteries	15
Figure 9 – Example of marking with recycling symbol for lithium ion batteries	15
Figure 10 – Example of marking with recycling symbol for lithium metal batteries	16
Figure 11 – Size of marking without recycling symbol	17
Figure 12 – Size of marking with recycling symbol	18
Figure 13 – Design of recycling symbol	19
Figure 14 – Design of letters	19
Figure 15 – Examples for markings with frames of a contrasting colour	20
Table 1 – Recycling and ecolabels regarding batteries	7
Table 2 – List of dimensions for symbols	17
Table 3 – Test matrix for durability test of markings	20
Table A.1 – Colour references	22

This is a preview of BS EN IEC 62902:2025. Click here to purchase the full version from the ANSI store.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SECONDARY CELLS AND BATTERIES – MARKING SYMBOLS FOR IDENTIFICATION OF THEIR CHEMISTRY

FOREWORD

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IEC 62902 has been prepared by IEC technical committee 21: Secondary cells and batteries. It is an International Standard.

This second edition cancels and replaces the first edition published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Addition of an Introduction;
- b) Addition of exemptions and clarifications for the marking background colour requirement;
- c) Addition of a calculation method for the battery volume;
- d) Addition of a new note to the Scope;
- e) Addition of a term and definition for the principal display panel;
- f) Addition of further chemistry information for Li-ion batteries;

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- g) Addition of a new subclause on adaptive size;
- h) Clarification of the test methods for durability and permanence of the marking.

The text of this International Standard is based on the following documents:

Draft	Report on voting
21/1195/CDV	21/1208/RVC

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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INTRODUCTION

This document introduces uniform marking symbols for the identification of the secondary battery chemistries prevailing on the market. A primary reason is that lead smelters around the world are reporting increasing numbers of lithium ion batteries finding their way into the lead-acid battery waste stream. Because the shape and design of these batteries sometimes is very similar, it can be difficult for sorting facilities and battery smelters to distinguish one technology from the other if there is no clear identification of the battery chemistry by marking symbols.

Processing lithium ion batteries within a lead smelter, e-waste facility, or municipal waste sorting facility, can result in fire or explosions, with numerous accidents or near-accidents already reported in European and US recycling facilities.

Besides lead-acid and lithium ion batteries, the labelling scheme should also apply to other battery chemistries with a significant market share, such as nickel metal hydride and nickel cadmium. Other batteries, such as sodium ion batteries, should be included in the marking scheme when their market share becomes significant.

A clear identification of the battery chemistry would be helpful throughout the entire battery lifetime, i.e. from the selection and purchase of a new battery (e.g. by economic operators as well as end users), to transportation, installation and use of the battery and then to waste battery collection, sorting, storage and treatment.

The following standards and recommendations were considered during the development of this document.

The Battery Association of Japan (BAJ) has issued "Guidelines for Recycle Mark on rechargeable cells and batteries for portable applications" which include an optional colour code system for identifying major (rechargeable) battery chemistries: Pb, Ni-Cd, Ni-MH, and Li-ion. These guidelines also distinguish different cathode materials as well as important impurities (mostly from the anode material)¹.

Call2Recycle has introduced in Canada and the United States of America a licensed labelling program for batteries. It is a non-profit organization that collects and recycles batteries on behalf of companies that pay a fee to license the label.

The recycling symbol required on batteries within the scope of this document is the general symbol for recovery/recyclable as standardised in ISO 7000-1135:2004-01, see item 1 in Table 1. It is worth noting the information that ISO provides for this symbol: Function/description: to indicate that the marked item or its material is part of a recovery or recycling process. Additional information: the symbol is applicable only to those products or materials for which at the end of life there is a well-established collection route and recycling process, and which does not significantly impair the effectiveness of other recycling schemes.

Battery marking can also be subject to regional legislation. One example being the crossed-out wheeled bin used in the European Union (EU) and in some other countries to make consumers aware of their obligation to make their batteries available for separate collection. Some other regulations, e.g. Regulation (EU) 2023/1542 on batteries and waste batteries, can require the use of additional symbols for substances of very high concern (SVHC), namely cadmium (Cd) and lead (Pb) exceeding certain concentration levels².

¹ For more information see the document referred to under "Source reference" for item 5 in Table 1.

² Regulation EU 2023/1542 does not require the addition of the Hg symbol to the separate collection symbol. However, there is a requirement for max. 0,0005 % Hg for all batteries in Annex I *Restriction on substances of the Batteries Regulation*.