



**NSAI**  
Standards

Irish Standard  
I.S. EN 50342-1:2015

# Lead-acid starter batteries - Part 1: General requirements and methods of test

**I.S. EN 50342-1:2015**

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

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*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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NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

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## National Foreword

I.S. EN 50342-1:2015 is the adopted Irish version of the European Document EN 50342-1:2015, Lead-acid starter batteries - Part 1: General requirements and methods of test

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 50342-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2015

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Supersedes EN 50342-1:2006

English Version

## Lead-acid starter batteries - Part 1: General requirements and methods of test

Batteries d'accumulateurs de démarrage au plomb - Partie  
1 : Prescriptions générales et méthodes d'essais

Blei-Akkumulatoren-Starterbatterien - Teil 1: Allgemeine  
Anforderungen und Prüfungen

This European Standard was approved by CENELEC on 2015-10-05. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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 CENELEC 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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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 50342-1:2015 (E)

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## European foreword

This document (EN 50342-1:2015) has been prepared by CLC/TC 21X "Secondary cells and batteries".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-10-05
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2018-10-05

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

This document supersedes EN 50342-1:2006.

EN 50342, *Lead-acid starter batteries*, is currently composed of the following parts:

- *Part 1: General requirements and methods of test* [the present document];
- *Part 2: Dimensions of batteries and marking of terminals*;
- *Part 3: Terminal system for batteries with 36 V nominal voltage*;
- *Part 4: Dimensions of batteries for heavy vehicles*;
- *Part 5: Properties of battery housings and handles*;
- *Part 6: Batteries for Micro-Cycle Applications* [currently at Formal Vote stage];
- *Part 7: General requirements and methods of tests for motorcycle batteries* [currently at Formal Vote stage].

EN 50342-1:2015 includes the following significant technical changes with respect to EN 50342-1:2006:

- a) The following topics have been reworked/changed in the new version:
  - 1) simplified structure;
  - 2) correction of errors;
  - 3) updated to actual state of art of lead acid batteries;
  - 4) definition of new requirement levels and a new system for identification.
- b) The following test procedures and requirements have been updated:
  - 1) charging procedure (reworked);
  - 2) cold cranking procedure (reworked);

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- 3) charge retention (reworked);
- 4) deep discharge (new);
- 5) cycling (reworked);
- 6) water consumption;
- 7) vibration test procedures (reworked and new requirement level V4 added for heavy trucks).

## 1 Scope

This European Standard is applicable to lead-acid batteries with a nominal voltage of 12 V, used primarily as a power source for the starting of internal combustion engines, lighting and also for auxiliary equipment of internal combustion engine vehicles. These batteries are commonly called “starter batteries”. Batteries with a nominal voltage of 6 V are also included within the scope of this standard. All referenced voltages need to be divided by two for 6 V batteries.

This European Standard is applicable to batteries for the following purposes:

- batteries for passenger cars,
- batteries for commercial and industrial vehicles.

This European Standard is not applicable to batteries for other purposes, for example the starting of railcar internal combustion engines or for motorcycles.

## 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.

EN 50342–2, *Lead-acid starter batteries — Part 2: Dimensions of batteries and marking of terminals*

EN 50342–4, *Lead-acid starter batteries — Part 4: Dimensions of batteries for heavy vehicles*

EN 50342-5, *Lead-acid starter batteries — Part 5: Properties of battery housings and handles*

EN 50342–6, *Lead-acid starter batteries — Part 6: Batteries for Micro-Cycle Applications*

EN 61429, *Marking of secondary cells and batteries with the international recycling symbol ISO 7000-1135 and indications regarding directives 93/86/EEC and 91/157/EEC (IEC 61429)*

IEC 60050–482, *International Electrotechnical Vocabulary — Part 482: Primary and secondary cells and batteries*

## 3 General

### 3.1 Introduction

The object of this standard is to specify:

- general requirements;
- certain essential functional characteristics, the relevant test methods and results required, for several classes and types of starter batteries.

For general definitions of terms see IEC 60050-482, Part 482 of the International Electro-technical Vocabulary (IEV).

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