

STN	Hliník a zliatiny hliníka Chemická analýza Odber vzoriek z roztaveného kovu	STN EN 14361
		42 0670

Aluminium and aluminium alloys - Chemical analysis - Sampling from metal melts

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/25

Obsahuje: EN 14361:2025

Oznámením tejto normy sa ruší
STN EN 14361 (42 0670) z mája 2005

140411

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14361

March 2025

ICS 77.040.30

Supersedes EN 14361:2004

English Version

**Aluminium and aluminium alloys - Chemical analysis -
Sampling from metal melts**

Aluminium et alliages d'aluminium - Analyse chimique
- Échantillonnage du métal fondu

Aluminium und Aluminiumlegierungen - Chemische
Analyse - Probenahme von Metallschmelzen

This European Standard was approved by CEN on 3 February 2025.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Türkiye and United Kingdom.



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

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

EN 14361:2025 (E)**Contents**

	Page
European foreword	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	5
4 Sampling from a melt	5
4.1 General.....	5
4.2 Sampling procedure.....	5
4.3 Size and coating of the sampling ladle for sampling from liquid metal.....	5
4.4 Form and size of the sampling mould and of the sample taken from liquid metal.....	5
4.5 Sampling plan.....	6
4.6 Preparation of tools for sampling from metal melts.....	6
4.7 Requirements for a sound melt sample.....	6
4.8 Check of the sampling equipment.....	7
Annex A (informative) Example for sampling from metal melts	8
Bibliography	12

European foreword

This document (EN 14361:2025) has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

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 September 2025, and conflicting national standards shall be withdrawn at the latest by September 2025.

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 14361:2004.

EN 14361:2025 includes the following significant technical changes with respect to EN 14361:2004:

- application of the latest template from CEN
- textual addition to the scope to make it more accurate
- new 4.3 regarding the size and coating of the sampling ladle for sampling from liquid metal
- textual addition in title of 4.6
- change in title of 4.8
- additional text to A.3.1.3
- additional text to A.3.2.1
- additional text to A.3.2.2
- change in title of A.3.3
- additional text to A.3.3.1
- additional text to A.3.3.2
- additional text to A.3.3.5
- additional text to A.3.3.8

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Türkiye and the United Kingdom.

EN 14361:2025 (E)

Introduction

Melts of aluminium alloys are susceptible to segregation when solidifying. Cast products, therefore, have concentration gradients. Axial and radial segregation profiles affect the representative sampling from melts, cast products or laboratory samples. In the case of direct analysis of solid samples (e.g. spark optical emission spectrometric analysis S-OES, or X-ray fluorescence spectrometric analysis XRF) measuring signals are influenced by the morphology of solidification and cast structure of the sample.

This document provides requirements as well as recommendations for sampling from a melt to ensure the correspondence between the average chemical composition of the cast material and the average composition of the test portion.

1 Scope

This document specifies criteria for sampling from aluminium and aluminium alloy melts in order to determine the chemical composition.

NOTE For sampling from product or laboratory samples see EN 14242 or EN 14726.

2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN