



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 377:2017

# Steel and steel products - Location and preparation of samples and test pieces for mechanical testing (ISO 377:2017)

**I.S. EN ISO 377:2017**

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

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

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):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

EN ISO 377:2017

*Published:*

2017-07-12

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2017-07-30

ICS number:

77.040.10

NOTE: If blank see CEN/CENELEC cover page

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

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

I.S. EN ISO 377:2017 is the adopted Irish version of the European Document EN ISO 377:2017, Steel and steel products - Location and preparation of samples and test pieces for mechanical testing (ISO 377:2017)

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

For relationships with other publications refer to the NSAI web store.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

This page is intentionally left blank

EUROPEAN STANDARD

EN ISO 377

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2017

ICS 77.040.10

Supersedes EN ISO 377:2013

English Version

## Steel and steel products - Location and preparation of samples and test pieces for mechanical testing (ISO 377:2017)

Acier et produits en acier - Position et préparation des échantillons et éprouvettes pour essais mécaniques (ISO 377:2017)

Stahl und Stahlerzeugnisse - Lage und Vorbereitung von Probenabschnitten und Proben für mechanische Prüfungen (ISO 377:2017)

This European Standard was approved by CEN on 23 May 2017.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (EN ISO 377:2017) has been prepared by Technical Committee ISO/TC 17 “Steel” in collaboration with Technical Committee ECISS/TC 100 “General issues” the secretariat of which is held by BSI.

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 January 2018, and conflicting national standards shall be withdrawn at the latest by January 2018.

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 ISO 377:2013.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 377:2017 has been approved by CEN as EN ISO 377:2017 without any modification.

This page is intentionally left blank



# INTERNATIONAL STANDARD

**ISO  
377**

Fourth edition  
2017-06

---

---

## **Steel and steel products — Location and preparation of samples and test pieces for mechanical testing**

*Acier et produits en acier — Position et préparation des échantillons  
et éprouvettes pour essais mécaniques*



Reference number  
ISO 377:2017(E)

© ISO 2017

**ISO 377:2017(E)**



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 General requirements</b> .....	<b>2</b>
4.1 Representative testing.....	2
4.2 Identification of sample products, samples, rough specimens and test pieces.....	2
<b>5 Preparation of samples and selection of test pieces</b> .....	<b>3</b>
5.1 Selection and dimensions of samples and location of test pieces.....	3
5.2 Direction of axis of test pieces.....	3
5.3 Condition and separation of samples.....	4
5.3.1 General.....	4
5.3.2 Testing in the as-delivered condition.....	4
5.3.3 Testing in the reference condition.....	4
<b>6 Preparation of test pieces</b> .....	<b>4</b>
6.1 Cutting and machining.....	4
6.2 Reference heat treatment.....	5
<b>Annex A (normative) Location of samples and test pieces</b> .....	<b>6</b>

## ISO 377:2017(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html)

The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 20, *General technical delivery conditions, sampling and mechanical testing methods*.

This fourth edition cancels and replaces the third edition (ISO 377:2013), of which it constitutes a minor revision to correct [Figure A.13 b](#)).

# Steel and steel products — Location and preparation of samples and test pieces for mechanical testing

## 1 Scope

This document specifies requirements for the identification, location and preparation of samples and test pieces intended for mechanical tests on steel sections, bars, rod, flat products and tubular products as defined in ISO 6929. If agreed in the order, this document can also apply to other metallic products. These samples and test pieces are for use in tests that are carried out in conformity with the methods specified in the product or material standard or, in the absence of this, in the standard for the test method.

Where the requirements of the order or product standard differ from those given in this document, then the requirements of the order or product standard apply.

## 2 Normative references

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.

ISO 3785, *Metallic materials — Designation of test specimen axes in relation to product texture*

ISO 6929, *Steel products — Vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6929 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1

#### **test unit**

number of pieces or the tonnage of products to accept or reject together, on the basis of the verification tests carried out on sample products in accordance with the requirements of the product standard or order

Note 1 to entry: See [Figure 1](#).

### 3.2

#### **sample product**

item (e.g. bar, sheet, coil) selected for inspection or testing

Note 1 to entry: See [Figure 1](#).

### 3.3

#### **sample**

sufficient quantity of material taken from the sample product for the purpose of producing one or more test pieces

Note 1 to entry: See [Figure 1](#).

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-