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**BS EN ISO 10447:2015**



**BSI Standards Publication**

# **Resistance welding — Testing of welds — Peel and chisel testing of resistance spot and projection welds**

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This British Standard is the UK implementation of EN ISO 10447:2015. It supersedes BS EN ISO 10447:2007 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/29, Resistance welding.

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

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

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## EUROPÄISCHE NORM

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English Version

## Resistance welding - Testing of welds - Peel and chisel testing of resistance spot and projection welds (ISO 10447:2015)

Soudage par résistance - Essais des soudures - Essais de pelage et de déboutonnage au burin appliqués aux soudures par résistance par points et par bossages (ISO 10447:2015)

Widerstandsschweißen - Schäl- und Meißelprüfung von Widerstandspunkt- und Buckelschweißverbindungen (ISO 10447:2015)

This European Standard was approved by CEN on 12 December 2014.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

This document (EN ISO 10447:2015) has been prepared by IIW "International Institute of Welding" in collaboration with Technical Committee CEN/TC 121 "Welding and allied processes" the secretariat of which is held by DIN.

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 August 2015, and conflicting national standards shall be withdrawn at the latest by August 2015.

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

This document supersedes EN ISO 10447:2007.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 10447:2015 has been approved by CEN as EN ISO 10447:2015 without any modification.

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## 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 WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is IIW, *International Institute of Welding*, Commission III.

This third edition cancels and replaces the second edition (ISO 10447:2006), which has been technically revised.

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## **Introduction**

This edition of ISO 10447 includes figures showing failure types and fracture modes of resistance spot and embossed projection welds in accordance with ISO 14329:2003.

The previous edition of ISO 10447 was revised to align it with ISO 17677-1.

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# Resistance welding — Testing of welds — Peel and chisel testing of resistance spot and projection welds

## 1 Scope

This International Standard specifies the procedures and recommended tooling to be used for peel and chisel testing of resistance spot and projection welds. This International Standard applies to welds made in two or more sheets in the thickness range of 0,5 mm to 3,0 mm.

The aim of these tests is to determine

- weld size and failure type when welds are destructively tested, and
- verification of welds by non-destructive chisel tests.

NOTE The preferred method of peel testing seam welds (mechanized peel testing) is covered in ISO 14270.

## 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.

ISO 14270, *Specimen dimensions and procedure for mechanized peel testing resistance spot, seam and embossed projection welds*

ISO 17677-1, *Resistance welding — Vocabulary — Part 1: Spot, projection and seam welding*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17677-1 and the following apply.

### 3.1

#### **chisel test**

destructive test with a chisel in which welds are tested by applying a predominantly tensile force that results in stresses primarily normal to the surface of the joint interface

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

### 3.2

#### **peel test**

destructive test in which welds are tested by applying a peel force that results in stresses primarily normal to the surface of the joint interface

Note 1 to entry: See [Figure 2a](#) and [Figure 2b](#).