INTERNATIONAL STANDARD

ISO 14323

Second edition
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Resistance welding — Destructive testing of welds — Specimen dimensions and procedure for impact tensile shear test and cross-tension testing of resistance spot and embossed projection welds

Soudage par résistance — Essais destructifs des soudures — Dimensions des éprouvettes et mode opératoire pour les essais de cisaillement par choc et les essais de traction par choc sur éprouvettes en croix des soudures par résistance par points et par bossage

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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).

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).

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 ISO/IIW, *International Institute of Welding*, Commission III.

This second edition cancels and replaces the first edition (ISO 14323:2006), which has been technically revised.

Requests for official interpretations of any aspect of this International Standard should be directed to the ISO Central Secretariat, who will forward them to the IIW Secretariat for an official response.

Introduction

This edition of ISO 14323 no longer includes figures showing failure types and modes for tensile shear and cross tension testing in accordance with ISO 14329:2003.

ISO 14323 was revised to align it with ISO 17677-1.

Resistance welding — Destructive testing of welds — Specimen dimensions and procedure for impact tensile shear test and cross-tension testing of resistance spot and embossed projection welds

1 Scope

This International Standard specifies specimen dimensions and testing procedures for impact tensile shear and cross-tension testing of resistance spot and embossed projection welds in overlapping sheets, in any metallic material of thickness 0,5 mm to 4 mm.

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 14272, *Specimen dimensions and procedure for cross tension testing resistance spot 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
impact cross-tension failure energy
failure energy obtained from the impact cross-tension testing

3.2
impact cross-tension strength
maximum impact force obtained in the impact cross-tension testing

3.3
impact tensile shear failure energy
failure energy obtained from the impact tensile shear testing

3.4
impact tensile shear strength
maximum impact force obtained in the impact tensile shear testing

4 Test specimen

The dimensions and form of the impact tensile shear test specimen are shown in Figure 1 and Table 1.

The positional accuracy of the weld on the test specimen shall be ±1 mm or less in every direction.

The dimensions and form of the impact cross-tension specimen are shown in Figure 2 (see ISO 14272).

An example of a jig for welding the impact cross-tension specimen is shown in Figure 3. Two punched strips are placed at right angles to each other, held in the jig, and welded together.