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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39166-2020

**Test method of mechanized peel for resistance spot, projection
and seam welds**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to amend and adopt ISO 14270.2016 "Destructive Test of Resistance Welding Seam Resistance Spot Welding, Seam Welding"

Specimen dimensions and procedures for mechanical peeling test of projection welded joints.

Compared with ISO 14270.2016, this standard has many structural adjustments. Appendix A lists this standard and ISO 14270.2016.

A list of changes in the chapter number

Compared with ISO 14270.2016, this standard has technical differences, and the clauses involved in these differences have been passed in the outer margins.

The set vertical single line (|) is marked, and Appendix B gives a list of the corresponding technical differences and their reasons.

This standard also made the following editorial changes.

---Modified the standard name;

---References are deleted.

This standard was proposed and managed by the National Welding Standardization Technical Committee (SAC/TC55).

Drafting organizations of this standard. CRRC Dalian Locomotive and Rolling Stock Co., Ltd., Harbin Welding Research Institute Co., Ltd., Fuyang Shengda, Anhui Province

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1 Scope

This standard specifies the mechanical peeling test equipment, test equipment and test equipment for the single welding point (weld seam) of resistance spot welding, projection welding and seam welding of metallic materials.

Samples, test procedures, repeated tests and test reports.

This standard applies to metal plates with a thickness of 0.5mm~5.0mm, a maximum solder joint diameter of 7t and less than 12mm (t is the plate thickness, when the plate thickness is

At different times, t is the thickness of the thinner plate) resistance welding joint.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 3375 welding terminology

GB/T 16825.1 Inspection of static uniaxial testing machine Part 1. Inspection and calibration of force measuring system of tensile and (or) compression testing machine

Standard (GB/T 16825.1-2008, ISO 7500-1.2004, IDT)

3 Terms and definitions

The following terms and definitions defined in GB/T 3375 apply to this document.

3.1

Mechanical peel test

Mechanical equipment is used to apply the peeling force acting in the thickness direction of the solder joints to conduct destructive tests of resistance welding lap joints.

3.2

Mechanical peel force

The force applied to the specimen during the mechanical peel test.

3.3

Multi-spot welding

Spot welding of two or more welding points with two or more pairs of electrodes at the same time or according to automatic control procedures.

3.4

Solder joint diameter

After the destructive test, without the help of metallographic inspection, the average diameter of the melting area measured on the bonding surface.

3.5

Minimum seam welding width

During seam welding, the minimum nugget width measured on the bonding surface.