

ICS 25.160.10
CCS J 33



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

GB/T 19869.2-2012

**Welding procedure qualification test for aluminum and its
alloys**

铝及铝合金的焊接工艺评定试验

(English Translation)

Issued on: November 5, 2012

Implemented on: March 1, 2013

Issued by: Standardization Administration of China

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Foreword

This standard rule according to GB/T 1.1-2009 given draft.

This standard uses redrafted Law Amendment uses ISO 15614-2:2005 "metallic materials and welding procedure qualification of welding technology assessment Setting test - Part 2. Arc welding of aluminum and its alloys "(in English).

This standard ISO 15614-2:2005 and its main technical difference between the following reasons.

--- Clear all kinds of imperfections qualified grade requirements in order to operate;

--- Add additional tests dissimilar aluminum joint assessment to meet the needs assessment;

The format and content --- Process Evaluation report combined with our practical application have been adjusted to facilitate the implementation.

For ease of use, this standard at the time of conversion to international standards made the following editorial changes.

--- Deleted international standards foreword;

--- The ISO 15614-2. ISO 2005 standards referenced in place of using the corresponding

standard.

This standard by the National Standardization Technical Committee welded (SAC/TC55) and focal points.

This standard was drafted. Harbin Welding Institute, Harbin Welding Training Institute, Shandong cable force in the welding consumables Co., Ltd., Jiangsu Wire Co., Ltd. Jiang.

1 Scope

This standard specifies the welding procedure qualification test methods and requirements for aluminum and aluminum alloys.

This standard applies to aluminum and aluminum alloys inert gas shielded arc welding and plasma arc welding.

When assessing other aluminum welding process may also refer to the relevant requirements of this standard.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2651-2008 welded joint tensile test method (ISO 4136:2001, IDT) GB/T 2653-2008 welded joints bend test (ISO 5173:2000, IDT) GB/T 3323-2005 metal fusion welded joints radiography GB/T 16475-2008 aluminum and aluminum alloy deformed state code (ISO 2107:2007, MOD) GB/T 16672-1996 Welds - Working positions tilt and swivel definition (idtISO 6947.1990) GB/T 19805-2005 welding operators Skill Evaluation (ISO 14732:1998, IDT) GB/T 19866-2005 welding procedures and general principles of assessment (ISO 15607:2003, IDT) GB/T 19867.1 arc welding procedure GB/T 19868.4-2005 pre-production welding procedure qualification test (ISO 15613:2004, IDT) GB/T 22087-2008 aluminum and aluminum alloy welding joint quality levels for imperfection (ISO 10042:2005, IDT) GB/T 24598-2009 fusion welding of aluminum and aluminum welding skills assessment (ISO 9606-2:2004, MOD) GB/T 26955-2011 metallic materials Destructive tests on welds welds macroscopic and microscopic examination (ISO 17639:2003, MOD) GB/T 27551-2011 metallic materials Destructive tests on welds fracture test (ISO 9017:2001, IDT) ISO/TR17671-4:2002 Recommended welding process welding of metallic materials - Part 4. Arc welding of aluminum and its alloys (Welding-Recommendationsforweldingofmetallicmaterials-Part 4. Arcweldingofaluminiumandaluminium aloys)

3 Pre-welding procedure process (pWPS)

Pre-procedure preparation welding process can refer to the relevant requirements of GB/T 19866 in.

4 Welding procedure qualification

Welding and test specimens shall conform to the requirements of Chapter 6 and Chapter 7.

To meet the requirements under the relevant test prerequisite, according to the standard welding procedure test and qualified welders or welding operators can Depending on its qualified GB/T 24598 or GB/T 19805 requirements.