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**NATIONAL STANDARD OF THE
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Tubular cored electrodes for high-strength steels

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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 modify the use of ISO 18276.2017 "welding material gas protection and self-protective arc welding with high strength steel

Flux cored wire classification (English version).

Compared with ISO 18276.2017, this standard has more adjustments in structure.

Appendix A lists this standard and ISO 18276.2017.

Checklist of changes in the number of chapters;

There are technical differences between this standard and ISO 18276.2017. Appendix B gives the corresponding technical differences and their causes.

Watch list.

This standard also made the following editorial changes.

--- Change the standard name to "High Strength Steel Flux Cored Wire";

--- Removed the ISO 18276.2017 Appendix A classification system (informative appendix);

--- Removed the ISO 18276..2017 Appendix C according to the yield strength and the average 47J impact energy classification of the flux cored wire type

Ming (informative appendix);

--- Added Appendix C flux core wire type control (informative appendix);

--- Added Appendix D protective gas type code (informative appendix).

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

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High strength steel flux cored wire

1 Scope

This standard specifies the type, technical requirements, test methods, re-inspection and technical conditions of supply of high-strength steel flux cored wire.

This standard is applicable to gas protection and self-shielded arc welding with a minimum tensile strength requirement of deposited metal of not less than 590 MPa.

Steel flux cored wire (hereinafter referred to as "welding wire").

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

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

GB/T 2650 welded joint impact test method (GB/T 2650-2008, ISO 9016.2001, IDT)

GB/T 2652 Weld and deposited metal tensile test method (GB/T 2652-2008, ISO 5178.2001, IDT)

GB/T 3323 metal fusion welding joints radiography

GB/T 3965 Method for determination of diffusible hydrogen in deposited metal (GB/T 3965-2012, ISO 3690.2000, MOD)

GB/T 16672 Definition of dip angle and corner of weld working position (GB/T 16672-1996, idtISO 6947.1990)

GB/T 18591 Welding preheating temperature, inter-channel temperature and preheating maintenance temperature measurement guide (GB/T 18591-2001,

ISO 13916.1996, IDT)

GB/T 25774.1 Inspection of welding materials - Part 1 . Preparation and inspection of mechanical properties of steel, nickel and nickel alloys

Inspection (GB/T 25774.1-2010, ISO 15792-1.2000, MOD)

GB/T 25774.3 Inspection of welded materials - Part 3. Preparation and inspection of T-joint fillet weld specimens (GB/T 25774.3-

2010, ISO 15792-3.2000, IDT)

GB/T 25775 welding materials supply technical conditions product type, size, tolerance and mark (GB/T 25775-2010, ISO 544.

2003, MOD)

GB/T 25777 welding material deposited metal chemical analysis sample preparation method (GB/T 25777-2010, ISO 6847.2000,

IDT)

GB/T 25778 Welding Materials Purchasing Guide (GB/T 25778-2010, ISO 14344.2010, MOD)

ISO 14175 welding materials and related methods for gas welding and mixed gases (Welding consumables-Gases and

Gas mixtures for fusion welding and allied processes)

3.1 Model division

The wire type is based on the mechanical properties of the deposited metal, the use characteristics, the welding position, the type of protective gas, the state after welding and the chemical composition of the deposited metal.

Wait for division. Refer to Appendix C for the comparison of this standard with other related standards for flux cored wire.

3.2 Model preparation method

The wire type consists of eight parts.

- 1) Part 1. The fuse "wire" is indicated by the letter "T";
- 2) The second part. indicates the tensile strength code of the deposited metal, see Table 1;
- 3) The third part. the test temperature code indicating that the impact energy (KV2) is not less than 27J, see Table 2;
- 4) Part 4. Indicates the use of the feature code, see Table 3;
- 5) Part 5. indicates the welding position code, see Table 4;
- 6) Part 6. Indicates the type of protective gas type, the code for self-protection is "N", and the code for protective gas is in accordance with ISO 14175.

See Appendix D;

7) Section 7. Indicates the post-weld status code, where "A" indicates the weld state, "P" indicates the post-weld heat treatment state, and "AP" indicates the weld state and

Both states of post-weld heat treatment can be used;

8) Section 8. Indicates the chemical composition of deposited metal, see 4.3, and Appendix E for the classification.