



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

GB/T 39255-2020

Shielding gas for welding and cutting

Issued on: November 19, 2020

Implemented on: June 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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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 14175.2008 "Gas and mixed gases for welding materials and related methods".

Compared with ISO 14175.2008, this standard has many adjustments in structure.

Appendix A lists this standard and ISO 14175.2008

A list of changes in chapter numbers.

Compared with ISO 14175.2008, this standard has technical differences. Appendix B gives the corresponding technical differences and their reasons.

List.

This standard also made the following editorial changes.

---Modify the standard name to "Shielding Gas for Welding and Cutting".

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

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Shielding gas for welding and cutting

1 Scope

This standard specifies the type, technical requirements, test methods, re-inspection and technical supply conditions of shielding gas for welding and cutting.

This standard applies to tungsten inert gas shielded arc welding (141), molten electrode gas shielded arc welding (13), plasma arc welding (15), plasma

Arc cutting (83), laser welding (52), laser cutting (84) and arc brazing (972) and other process methods (codes in brackets refer to GB/T 5185)

Protection, working and auxiliary gas and mixed gas (hereinafter referred to as "protection gas").

2 Terms and definitions

The following terms and definitions apply to this document.

2.1

mixed composition

A gas containing two or more effective components.

[GB/T 13005-2011, definition 2.24]

2.2

Matrix gas

The main component or single component gas in a mixed gas.

2.3

Component gas

A component added to achieve mixed gas performance.

2.4

Type code

The major and minor category codes of the mixed gas are shown in Table 1 and Table 2.

2.5

Nominal value

The component percentage value reported by the manufacturer or supplier corresponds to the component given in the model.

2.6

container

Cylinders, tank trucks and storage tanks used to transport and/or store pure gas or mixed gas in gaseous or liquid state.

3.1 Model division

Gas models are classified according to chemical properties and composition.

3.2 Model preparation method

The protective gas model consists of three parts.

1) The first part. indicates the type code of the protective gas, which is composed of the major category code (see Table 1) and the small category code (see Table 2)