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

GB 8159-1987

Replacing GB 8159-1987; GB/T 8160-1987

**Mines filter self-rescuer for carbon monoxide
(English Translation)**

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Foreword

5,6.1,6.2,6.4,6.9 this standard is mandatory, the rest are recommended.

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

This standard replaces GB 8159-1987 "Mine carbon monoxide filter self" and GB/T 8160-1987 "Mine too monoxide Filter self rescuer test methods. " this standard and GB 8159-1987, GB/T 8160-1987 compared to the main changes are as follows.

- Added "models, basic parameters, conditions of use" clause (see 4.3,4.4,4.5);
- Increased security signs clause (see 5.1.1);
- Added "test gas flow (90 ± 5) L/min" clause (see Table 3);
- Increased factory inspection items and type inspection items (see Table 5);
- Increasing the guard time 120min, 180min two block (see 4.2);
- Increasing the basic parameters of the carbon monoxide oxidation catalyst, desiccant technical indicators (see 4.4.2,4.4.3);
- Improving the inhalation of carbon monoxide gas through the concentration of carbon monoxide intake through accumulation, through the intake of carbon monoxide Early indicators of peak concentrations and intake air temperature values, etc. (see 5.2.2,5.2.3,5.2.5).

This standard was proposed by the State Administration of Work Safety.

This standard by the National Standardization Technical Committee of Coal Mine Production Safety Security Technical Committee (SAC/TC288/SC1) centralized.

1 Scope

This standard specifies the ore references, terms and definitions, types with carbon monoxide filter self standardization, classification, model, basic Parameters and conditions, technical requirements, test methods, inspection rules, marking, packaging, storage and so on.

This standard applies to mine with carbon monoxide filter self (hereinafter. self-rescuer).

2 Normative references

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

GB/T 191 Packaging - Pictorial signs GB/T 528 vulcanized rubber or thermoplastic rubber measured tensile stress-strain properties GB/T 531 (all parts) vulcanized rubber or thermoplastic rubber pressed into the hardness test GB/T 2423.18 Environmental testing for electric and electronic products Part 2. Tests - Test Kb. Salt mist, cyclic (sodium chloride solution) GB 2890 Respiratory protective self-absorption filter respirators GB/T 3512 vulcanized rubber or thermoplastic rubber hot air and heat accelerated aging test GB 3836.1 Electrical apparatus for explosive gas atmospheres - Part 1. General requirements GB/T 6165 high efficiency particulate air filter performance test methods for efficiency and resistance GB/T 10111 random numbers and its applications in the production of product quality sampling in General requirements for HG/T 2198 vulcanized rubber physical test method

3 Terms and Definitions

The following terms and definitions apply to this document.

Total weight mass of whole self-rescuer not including rubber boots and outer bag rescuer product quality.

Filter quality mass of filter canister Including the quality of oral appliance group, exhale valve block, desiccant, catalyst, bottles of medicine and laminate composed.

Through the concentration of carbon monoxide carbon monoxide permeation concentration After the filter the intake air concentration of carbon monoxide.

Carbon monoxide through the accumulation carbon monoxide permeation accumulation volume Within the prescribed period of protection as measured by the sum of the carbon monoxide concentration values according to the

formula to calculate the amount of carbon monoxide through.