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Methods of measurement for airborne dust concentration in welding environment

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Welding Engineering Society (JWES)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS Z 3950** : 2005), which has been technically revised.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

Methods of measurement for airborne dust concentration in welding environment

Introduction

This Japanese Industrial Standard has been prepared based on ISO 10882-1 : 2011, Edition 2, with some modifications of the technical contents to incorporate the method of airborne particle concentration measurement commonly adopted for welding environment in Japan.

Annex JA is unique to JIS and not given in the corresponding International Standard. The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JB.

1 Scope

This Standard specifies the procedure for sampling and mass concentration measurement of airborne dust particles in the breathing zone of a person who performs welding and allied processes (the operator) and in the working environment.

NOTE 1 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 10882-1 : 2011 *Health and safety in welding and allied processes — Sampling of airborne particles and gases in the operator's breathing zone — Part 1 : Sampling of airborne particles* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and JIS are IDT (identical), MOD (modified), and NEQ (not equivalent) according to ISO/IEC Guide 21-1.

NOTE 2 Typical allied processes include thermal cutting, grinding, chipping or other works related to welding.

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7551 *Variable area flowmeters*

JIS K 0083 *Methods for determination of metals in flue gas*

JIS Z 3001 (all parts) *Welding and allied processes — Vocabulary*

JIS Z 3920 *Methods for chemical analysis of welding fumes*

JIS Z 8813 *Measuring methods for suspended particulate matter concentration in*