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**Abrasive blast-cleaning methods for
surface preparation**

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Foreword

This translation has been made based on the original Japanese Industrial Standard 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 Japan Association of Corrosion Control (JACC)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS Z 0310 : 1995** is replaced with this Standard.

This revision has been made based on **ISO 8504-1 : 2000** *Preparation of steel substrates before application of paints and related products—Surface preparation methods—Part 1 : General principles* and **ISO 8504-2 : 2000** *Preparation of steel substrates before application of paints and related products—Surface preparation methods—Part 2 : Abrasive blast-cleaning* for the purposes of making it easier to compare this Standard with International Standards; to prepare Japanese Industrial Standard conforming with International Standards; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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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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Abrasive blast-cleaning methods for surface preparation

Introduction This Japanese Industrial Standard has been prepared based on each second edition of **ISO 8504-1** *Preparation of steel substrates before application of paints and related products—Surface preparation methods—Part 1 : General principles* and **ISO 8504-2** *Preparation of steel substrates before application of paints and related products—Surface preparation methods—Part 2 : Abrasive blast-cleaning* published in 2000 with modifying some technical contents.

Portions sidelined or underlined with dots are the matters modified from the original International Standards. The list of modification with its explanation is given in annex 1 (informative).

Warning : The apparatus and materials used in abrasive blast-cleaning may be hazardous if adequate precautions are not taken. Scattering abrasives and their flow may be injurious to the human body and may give damages to the ambient apparatus and instruments. Moreover, the powders, particles and mixed water are liable to be a cause of environmental pollution. Therefore, appropriate preparation and control are needed in carrying out the blast-cleaning so as not to bring about the results like those.

1 Scope This Standard specifies abrasive blast-cleaning methods for the preparation of steel surface before application of paints and related products for the purposes of rust and corrosion prevention and, moreover, specifies the basis matters relating to abrasives used, and the test and assessment of the cleaned surface.

Remarks : The International Standards corresponding to this Standard are as follows.

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

ISO 8504-1 : 2000 *Preparation of steel substrates before application of paints and related products—Surface preparation methods—Part 1 : General principles* (MOD)

ISO 8504-2 : 2000 *Preparation of steel substrates before application of paints and related products—Surface preparation methods—Part 2 : Abrasive blast-cleaning* (MOD)

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication of the year of publication is given to these referred standards, only the edition of the indicated year constitutes the provision of this Standard but the revision and amendment made thereafter do not apply. The normative references without the indication of the year of coming into effect apply only to the most recent edition (including amendments).

JIS Z 0103 *Glossary of terms used in rust and corrosion preventive technology*

JIS Z 0311 *Metallic blast-cleaning abrasives*

Remarks : **ISO 11124-1** : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for metallic blast-cleaning abrasives—Part 1 : General introduction and classification*
ISO 11124-2 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for metallic blast-cleaning abrasives—Part 2 : Chilled-iron grit*
ISO 11124-3 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for metallic blast-cleaning abrasives—Part 3 : High-carbon cast-steel shot and grit and*
ISO 11124-4 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for metallic blast-cleaning abrasives—Part 4 : Low-carbon cast-steel shot are equivalent to the said standard.*

JIS Z 0312 *Non-metallic blast-cleaning abrasives*

Remarks : **ISO 11126-1** : 1997 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 1 : General introduction and classification*
ISO 11126-3 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 3 : Copper refinery slag*
ISO 11126-4 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 4 : Coal furnace slag*
ISO 11126-5 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 5 : Nickel refinery slag*
ISO 11126-6 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 6 : Iron furnace slag*
ISO 11126-7 : 1999 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 7 : Fused aluminium oxide*
ISO 11126-8 : 1993 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 8 : Olivine sand*
ISO 11126-9 : 1999 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 9 : Staurolite and*
ISO 11126-10 : 2000 *Preparation of steel substrates before application of paints and related products—Specifications for non-metallic blast-cleaning abrasives—Part 10 : Almandite garnet are equivalent to the said standard.*

JIS Z 0313 *Tests and assessment of abrasive blast-cleaned substrates before application of paints and related products*

Remarks : **ISO 8501-1 : 1988** *Preparation of steel substrates before application of paints and related products—Visual assessment of surface cleanliness—Part 1 : Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

ISO 8501-1 : 1988/Suppl : 1994 *Preparation of steel substrates before application of paints and related products—Visual assessment of surface cleanliness—Part 1 : Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

ISO 8502-2 : 1992 *Preparation of steel substrates before application of paints and related products—Tests for the assessment of surface cleanliness—Part 2 : Laboratory determination of chloride on cleaned surfaces*

ISO 8502-3 : 1992 *Preparation of steel substrates before application of paints and related products—Tests for the assessment of surface cleanliness—Part 3 : Assessment of dust on steel surfaces prepared for painting (pressure-sensitive tape method)*

ISO 8502-4 : 1993 *Preparation of steel substrates before application of paints and related products—Tests for the assessment of surface cleanliness—Part 4 : Guidance on the estimation of the probability of condensation prior to paint application*

ISO 8502-9 : 1998 *Preparation of steel substrates before application of paints and related products—Tests for the assessment of surface cleanliness—Part 9 : Field method for the conductometric determination of water-soluble salts*

ISO 8502-10 : 1999 *Preparation of steel substrates before application of paints and related products—Tests for the assessment of surface cleanliness—Part 10 : Field method for the titrimetric determination of water-soluble chloride*

ISO 8503-2 : 1988 *Preparation of steel substrates before application of paints and related products—Surface roughness characteristics of blast-cleaned steel substrates—Part 2 : Method for the grading of surface profile of abrasive blast-cleaned steel—Comparator procedure*

ISO 8503-3 : 1988 *Preparation of steel substrates before application of paints and related products—Surface roughness characteristics of blast-cleaned steel substrates—Part 3 : Method for the calibration of ISO surface profile comparators and for the determination of surface profile—Focusing microscope procedure and*

ISO 8503-4 : 1988 *Preparation of steel substrates before application of paints and related products—Surface roughness characteristics of blast-cleaned steel substrates—Part 4 : Method for the calibration of ISO surface profile comparators and for the determination of surface profile—Stylus instrument procedure are equivalent to the said standard.*

3 Definitions For the purposes of this Standard, the definitions given in **JIS Z 0103** and the following shall apply.