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Testing methods for thermal cycle resistance of oxidation resistant metallic coatings

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Foreord

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

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Testing method for thermal cycle resistance of oxidation resistant metallic coatings

1 Scope

This Japanese Industrial Standard specifies the testing method for thermal cycle resistance to evaluate the durability of oxidation resistant metallic coatings which cover the parts in high temperature such as the rotating blade and the stationary blade of gas turbine for power generation used in the thermal power plant.

2 Normative references

The following standards contain provisions which, 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 0128 *Glossary of terms for thermal power plants — Gas turbine and auxiliary equipment*
- JIS B 7502 *Micrometer callipers*
- JIS B 7507 *Vernier, dial and digital callipers*
- JIS H 8451 *Testing methods for thermal cycle and thermal shock resistance of thermal barrier coatings*
- JIS Z 8401 *Guide to the rounding of numbers*

3 Terms and definitions

For the purposes of this Standard, the definitions given in JIS B 0128 and JIS H 8451, and the following definition apply.

3.1 oxidation resistant metallic coating

metallic coating (hereafter referred to as “coating”) to suppress the oxidation due to high temperature of parts in high temperature by the combustion gas

4 Classification of test method

The testing method shall be the thermal cycle test.