

Translated and Published by Japanese Standards Association

 $JIS \ R \ 1621 : 2008$ 

(JFCA)

Testing method for bending fatigue of fine ceramics at room temperature

ICS 81.060.30

Reference number: JIS R 1621: 2008 (E)

R 1621:2008

Date of Establishment: 1995-06-01

Date of Revision: 2008-03-20

Date of Public Notice in Official Gazette: 2008-03-21

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Ceramics

JIS R 1621:2008, First English edition published in 2009-02

Translated and published by: Japanese Standards Association 4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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

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Printed in Japan

## Contents

	Page
Intr	oduction1
1	Scope1
2	Normative references
3	Terms and definitions ————————————————————————————————————
4	Test specimens
5 5.1 5.2 5.3	Testing machine
6 6.1 6.2 6.3 6.4	Testing method7Waveform of loading stress7Loading method7Number of cycles for suspension7Prohibition of reuse of test specimen7
7 7.1 7.2 7.3	
8	Test report ·····9
Ann	ex JA (informative) Comparison table between JIS and corresponding  International Standard10

#### **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 Fine Ceramics Association (JFCA) 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 R 1621: 1995 is replaced with this Standard.

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# Testing method for bending fatigue of fine ceramics at room temperature

JIS R 1621:2008

#### Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 22214** published in 2006 with some modifications of the technical contents.

The portions given sidelines or dotted underlines are the matters in which the contents of the original International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

#### 1 Scope

This Standard specifies a testing method for four-point bending fatigue of fine ceramics that are carried out in the air at room temperature (5 °C to 35 °C).

NOTE: The International Standard corresponding to this Standard is as follows.

ISO 22214:2006 Fine ceramics (advanced ceramics, advanced technical ceramics)—Test method for cyclic bending fatigue of monolithic ceramics at room temperature (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**.

### 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 0601 Geometrical Product Specifications (GPS)—Surface texture: Profile method—Terms, definitions and surface texture parameters
- JIS B 0621 Definitions and designations of geometrical deviations
- JIS B 7502 Micrometer callipers
  - NOTE: Corresponding International Standard: ISO 3611:1978 Micrometer callipers for external measurement (MOD)
- JIS R 1601 Testing method for flexural strength (modulus of rupture) of fine ceramics at room temperature
  - NOTE: Corresponding International Standard: ISO 14704: 2000 Fine ceramics (advanced ceramics, advanced technical ceramics)—Test method for flexural strength of monolithic ceramics at room temperature (MOD)
- JIS Z 8401 Guide to the rounding of numbers

#### 3 Terms and definitions

For the purposes of this Standard, the following terms and definitions apply.