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(JPI/JSA)

Cushioning materials for packaging—Determination of cushioning performance

ICS 55.040; 83.100

Reference number : JIS Z 0235 : 2002 (E)

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 the Japan Packaging Institute (JPI)/the 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 0235** : 1997 is replaced with this Standard.

Date of Establishment: 1970-09-01

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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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Cushioning materials for packaging— Determination of cushioning performance

Introduction This Japanese Industrial Standard has been made based on the corresponding International Standard as to the relating part (impact load test) of **ISO 4651** *Cellular rubbers and plastics—Determination of dynamic cushioning performance* with some modifications of the technical contents.

Portions underlined with dots or given sidelines in this Standard are the matters not specified in the original International Standard.

1 Scope This Standard specifies the determination of cushioning performance and compression creep test method of the cushioning materials for packaging composed of the materials from which the non-proportional test pieces can be sampled or of the material of granular form.

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

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**.

ISO 4651 : 1988 *Cellular rubbers and plastics—Determination of dynamic cushioning performance* (MOD)

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7733 *Verification of the force measuring system of the compression testing machine*

JIS Z 0203 *Packaged freights—Conditioning for testing*

JIS Z 8401 *Guide to the rounding of numbers*

3 Definitions For the purpose of this Standard the following definitions apply.

a) **cushioning material for packaging** The material used mainly for mitigating the impact and vibration given to the contents packaged (hereafter referred to as "cushioning materials").

b) **impact load** The load generated in the test piece by the drop of hammer in the impact load test and its value is obtained by multiplying the total mass of the hammer by the acceleration generated.

c) **static stress** The total mass of the hammer and any additional masses multiplied by the gravitational acceleration divided by the original area of the test piece. It is expressed in the load per unit area.