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**Rubber vibration isolators—
Rubber material classification**

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Contents

	Page
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification symbol	2
5 Quality	2
6 Test methods	9
7 Symbols for Special specifications	11
8 Marking	13

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 Rubber Manufacturers Association (JRMA)/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 K 6386:1999** is replaced with this Standard.

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Rubber vibration isolators— Rubber material classification

1 Scope

This Japanese Industrial Standard specifies the classification of rubber materials used for the products of rubber vibration isolator (hereafter referred to as rubber vibration isolators), which are generally used for the purpose of preventing the transmission of vibration and impact, and absorbing vibration or shock. This Standard, however, does not cover ebonite, cellular rubber, and rubber reinforced with fabrics and cords.

WARNING Persons using this Standard should be familiar with normal laboratory practice. This Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this Standard to establish appropriate safety and health practices.

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 K 6200 *Rubber—Vocabulary*

JIS K 6250 *Rubber—General procedures for preparing and conditioning test pieces for physical test methods*

JIS K 6251 *Rubber, vulcanized or thermoplastic—Determination of tensile stress-strain properties*

JIS K 6253-3 *Rubber, vulcanized or thermoplastic—Determination of hardness—Part 3: Durometer method*

JIS K 6254 *Rubber, vulcanized or thermoplastic—Determination of stress-strain properties*

JIS K 6255 *Rubber, vulcanized or thermoplastic—Determination of rebound resilience*

JIS K 6257 *Rubber, vulcanized or thermoplastic—Determination of heat ageing properties*

JIS K 6258 *Rubber, vulcanized or thermoplastic—Determination of the effect of liquids*

JIS K 6259-1 *Rubber, vulcanized or thermoplastic—Determination of ozone resistance—Part 1: Static and dynamic strain testing*

JIS K 6262 *Rubber, vulcanized or thermoplastic—Determination of compression set at ambient, elevated or low temperatures*

JIS K 6385 *Rubber vibration isolators—Testing methods*

JIS K 6394 *Rubber, vulcanized or thermoplastic—Determination of dynamic properties—General guidance*

JIS Z 8401 *Guide to the rounding of numbers*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS K 6200** and **JIS K 6254**, and the following apply.

3.1

dynamic-to-static modulus ratio d

the ratio of the spring constant of rubber vibration isolator under dynamic condition to the spring constant under static condition

The dynamic condition means sinusoidal vibration condition.

4 Classification symbol

4.1 General

The classification symbol for rubber material of rubber vibration isolator shall be the combination of the symbol indicating the rubber material class and the numeral indicating the static shear modulus. In the case where the static shear modulus is not measured, the relevant numeral shall be put in parentheses and described.

4.2 Symbols indicating rubber material class

The rubber materials of rubber vibration isolator shall be classified into five as shown in Table 1, according to the purpose of application. The expression method of rubber material class shall be in accordance with Clause 8.

Table 1 Classes and symbols of rubber material

Symbol	Class
A	Vulcanized rubber in general use (not included in B, C, D, E)
B	Vulcanized rubber required to have oil resistance
C	Vulcanized rubber required to have weather resistance (and slight oil resistance)
D	Vulcanized rubber required to have vibration damping
E	Vulcanized rubber required to have heat resistance

4.3 Numeral indicating static shear modulus

The numeral of static shear modulus (MPa) shall be multiplied by 10, truncated to the integer and indicated as the numeral part of classification symbol.

5 Quality

The quality of rubber material of rubber vibration isolator shall conform to General specifications shown in Table 2 to Table 6 when tested in accordance with Clause 6. The measurement of static shear modulus may be replaced by the hardness measurement as agreed between the interested parties.