

Test code of seating comfort for automobile seats

1. Scope

This standard specifies the test methods for evaluating the general performance of automobile seats on their seating comfortability.

Remarks: In this standard, units, numerical values and equations given in { } are conventional units, shown for reference.

2. Purpose

This standard is developed for standardizing the test methods to be used for testing the seating comfortability of automobile seats and for ensuring an adequate evaluation of the seating comfortability of these seats.

3. Definitions

Definitions of principal terms used in this standard shall be pursuant to JASO Z 215 (Glossary of Terms Relating to Seats of Automobiles).

4. Test types and their applicability

4.1 Types of tests

Tests shall be classified by tpe as shown in **Table 1** according to the objectives of the tests and the characteristics of the test piece to be tested.

4.2 Test applicability

The tests shall be applied as shown in **Table 2** depending on the piece to be tested.

Table 1 Test types

Type of test	Test objective	Characteristics to examine
Load	Deflecting performance	Load-deflection curve
		Deflection
	Static spring constant	
	Damping performance	Hysteresis loss coefficient
Hardness Distribution	Hardness distribution	Hardness distribution curve
Surface Hardness	Softness	Load-sinkage curve
		Sinkage
		Static spring constant
Vibration	Vibration performance	Acceleration transmissibility characteristics or displacement transmissibility characteristics
		Resonance frequency
		Resonance magnification
		Dynamic spring constant
Damping	Damping performance	Damping waveform
		Logarithmic decrement

Table 2 Test applicability

Type of test \ Type of test piece	Seat cushion	Seat back
Load	○	○
Hardness Distribution	○	○
Surface Hardness	○	○
Vibration	○	-
Damping	○	-

Remarks: ○ Test applicable

- Normative references:**
- JIS D 4607** Three dimensional manikins for use in defining automobile seating accommodations (3DM-JM50)
 - JIS Z 8401** Rules for rounding off of numerical values
 - JASO Z 009** Hip point of automobile seat
 - JASO Z 215** Glossary of terms relating to seats of automobiles
 - ISO 6549** Road vehicles – Procedure for H-point determination