

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

*(Not to be reproduced without permission of BIS or used as an Indian Standard)*

*भारतीय मानक मसौदा*

पैकेजिंग - पूर्ण, भरे हुए परिवहन पैकेज - प्रदर्शन परीक्षण अनुसूचियों के संकलन के लिए सामान्य नियम  
*(दूसरा पुनरीक्षण)*

*Draft Indian Standard*

**Packaging — Complete, Filled Transport Packages — General Rules for the  
Compilation of Performance Test Schedules  
(Second Revision)**

ICS: 55.180.40

---

Not to be reproduced without permission of BIS  
or used as standard

Last date for receipt of comments  
is 04/11/2023

---

Transport Packages, Packaging Codes and Pallets Sectional Committee, TED 24

## NATIONAL FOREWORD

This draft Indian Standard which is identical with ISO 4180: 2019 ‘Packaging — Complete, Filled Transport Packages — General Rules for the Compilation of Performance Test Schedules’ issued by International Organization for Standardization (ISO), will be adopted by the Bureau of Indian Standards on the recommendations of Transport Packages, Packaging Codes and Pallets Sectional Committee and approval of the Transport Engineering Division Council.

This standard was originally published as IS 9733 (Part 1): 1981 ‘Guidelines for the compilation of performance test schedules of complete, filled transport packages: Part 1 General principles’ and IS 9733 (Part 2): 1989 ‘Guidelines for compilation of performance tests schedules of complete filled transport packages: Part 2 Quantitative data’. As ISO 4180 has now published in one composite form, the committee decided to revise this standard in order to align it with the latest version of ISO 4180: 2009 to harmonize with the latest international practices.

In 2009, ISO 4180 was published in one composite form i.e. ISO 4180: 2009 and hence to align with latest ISO Standard, Part 1 and Part 2 of IS 9733 were also merged and published as IS 9733: 2015 which was identical adoption of ISO 4180: 2009.

In order to harmonize with the latest international practices, IS 9733 is being revised to harmonize it with ISO 4180: 2019. The major changes in this revision are as follows:

- a) The test item in the test schedule can now be selected by agreement of the stakeholders depending on the expected or existing transportation process and hazards;
- b) In 6.4, the test conditions have been reviewed and revised by the distance and condition of transportation;
- c) In 6.5, a new Level-4 has been added for well controlled handling; and
- d) In 6.6, the test conditions have been reviewed and revised; they can be changed or selected depending on the storage conditions by the agreement of stakeholders.

The text of ISO standard is proposed for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this draft standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 2206  Packaging — Complete, filled transport packages — Identification of parts when testing	IS 7030: 1988  Identification of parts for complete, filled transport packages when testing (First Revision)	Modified/Technically Equivalent
ISO 2233  Packaging — Complete, filled transport packages and unit loads — Conditioning for testing	IS 7031: 2002 / ISO 2233:2000  Method of conditioning for testing of complete, filled transport packages (Second Revision)	Identical under dual numbering
ISO 2244  Packaging — Complete, filled transport packages and unit loads — Horizontal impact tests	IS 7028 (Part 3) : 2002 / ISO 2244:2000  Performance tests for complete, filled transport packages: Part 3 horizontal impact tests (Horizontal Or Inclined Test, Pendulum Test) (Second Revision)	Identical under dual numbering
ISO 2873  Packaging — Complete, filled transport packages and unit loads — Low pressure test	IS 7028 (Part 7) : 2002 / ISO 2873:2000  Performance tests for complete, filled transport packages: Part 7 low pressure test (Second Revision)	Identical under dual numbering
ISO 8318  Packaging — Complete, filled transport packages and unit loads — Sinusoidal vibration tests using a variable frequency	IS 7028 (Part 12) : 2002 / ISO 8318:2000  Performance tests for complete, filled transport packages: Part 12 vibration test using a sinusoidal variable frequency (First Revision)	Identical under dual numbering
ISO 13355: 2016  Packaging — Complete, filled transport packages and unit loads — Vertical	IS 15763: 2020 / ISO 13355: 2016  Packaging — Complete, Filled Transport Packages and Unit Loads — Vertical Random	Identical under dual numbering

random vibration test	Vibration Test (First Revision)	
-----------------------	---------------------------------	--

The technical committee may review the provisions of following International Standards referred in this adopted standard and may decide if they are acceptable for use in conjunction with this draft standard:

<i>International Standard</i>	<i>Title</i>
ISO 21067-1	Packaging — Vocabulary — Part 1: General terms
IEC 60068-1: 2013	Environmental testing — Part 1: General and guidance

Attention is drawn to the possibility that some of the elements of this draft standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off it shall be done in accordance with IS 2: 2022 'Rules for rounding off numerical values (*second revision*)'.

## **SCOPE**

This document establishes general rules for the compilation of performance test schedules for complete, filled transport packages intended for use within any distribution system except for the packages used for dangerous goods.

**FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 4180: 2019  
or CONTACT:**

P. V. Srikanth  
Scientist- D & Head  
Transport Engineering Department  
Bureau of Indian Standards  
9 Bahadur Shah Zafar Marg  
New Delhi 110 002  
Email: [ted@bis.org.in](mailto:ted@bis.org.in), [hted@bis.org.in](mailto:hted@bis.org.in)  
Telefax: 011- 2323 6311