

**Packaging - Transport packaging for dangerous goods -
Test methods (ISO 16495:2013)**

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NATIONAL FOREWORD

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ICS 13.300, 55.020

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ICS 13.300; 55.020

English Version

**Packaging - Transport packaging for dangerous goods - Test
methods (ISO 16495:2013)**

Emballages - Emballages de transport pour marchandises
dangereuses - Méthodes d'essai (ISO 16495:2013)

Verpackung - Verpackungen zur Beförderung gefährlicher
Güter - Prüfverfahren (ISO 16495:2013)

This European Standard was approved by CEN on 12 July 2013.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN ISO 16495:2013) has been prepared by Technical Committee ISO/TC 122 "Packaging" in collaboration with Technical Committee CEN/TC 261 "Packaging" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2014, and conflicting national standards shall be withdrawn at the latest by February 2014.

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Endorsement notice

The text of ISO 16495:2013 has been approved by CEN as EN ISO 16495:2013 without any modification.

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Introduction

This International Standard was developed to provide requirements and test procedures to meet the multi-modal United Nations Recommendations on the Transport of Dangerous Goods Model Regulations referred to as “UN recommendations” throughout this International Standard, and successful passing of the tests may lead to the allocation of an appropriate UN packaging mark. The UN Recommendations have been developed by the United Nations Sub Committee of Experts on the Transport of Dangerous Goods as a ‘model regulation’ in the light of technical progress, the advent of new substances and materials, the exigencies of modern transport systems and, above all, the need to ensure the safety of people, property and the environment. Amongst other aspects, the UN Recommendations cover principles of classification and definition of classes, listing of the principal dangerous goods, general packing requirements, testing procedures, marking, labelling or placarding, and shipping documents. There are in addition special recommendations related to particular classes of goods.

The UN Recommendations are given legal entity by the provisions of a series of international modal agreements and national legislation for the transport of dangerous goods. The international agreements include the following:

- The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) (covering most of Europe).^[1]
- Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) (covering most of Europe, parts of North Africa and the Middle East).^[2]
- The International Maritime Dangerous Goods Code (IMDG Code) (worldwide).^[3]
- The International Civil Aviation Organization’s Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs) (worldwide).^[4]

The application of this International Standard will need to take account the requirements of these international agreements and the relevant national regulations for domestic transport of dangerous goods.

It is important to note that there will be certain modal differences from the UN Recommendations and that the schedule for revision of the Recommendations and modal provisions may lead to temporary inconsistencies with this International Standard.

It is noted that success in the tests and the allocation of an official UN mark do not on their own authorize the use of a packaging for any dangerous goods, which are subject to the packing instructions published in the various modal regulations.

This International Standard is based on Revision 17 of the UN Recommendations.

Packaging — Transport packaging for dangerous goods

— Test methods

1 Scope

This International Standard specifies the information needed for the design type testing of packaging, Intermediate Bulk Containers (IBCs) and large packaging intended for use in the transport of dangerous goods.

NOTE 1 This International Standard can be used in conjunction with one or more of the international regulations set out in the Bibliography.

NOTE 2 The term “packaging” includes packaging for Class 6.2 infectious substances according to the United Nations.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2206:1987, *Packaging — Complete, filled transport packages — Identification of parts when testing*

ISO 2248:1985, *Packaging — Complete, filled transport packages — Vertical impact testing by dropping*

ISO 2875:2000, *Packaging — Complete, filled transport packages and unit load — Water-spray test*

ISO/IEC 17025:2005, *General requirements for the competence of testing and calibration laboratories*

United Nations Recommendations on the Transport of Dangerous Goods — Model Regulations

3 Terms and definitions

For the purposes of this document, the terms and definitions given in the UN Recommendations, Chapter 1.2.1, and the following apply.

3.1

brimful capacity

volume of water in litres held by the packaging, IBC, inner packaging of a combination packaging and/or large packaging, when filled through the designed filling orifice to the point of overflowing in its normal position of filling, and considered for testing purposes as maximum capacity

3.2

nominal capacity

capacity in litres which, by convention, is used to represent a class of packaging of a similar brimful capacity

3.3

single packaging

means of packaging that does not require an inner packaging to be capable of performing its containment function and it includes composite packaging