

**Packaging - Transport packages for  
dangerous goods - Recycled plastics  
material**

Packaging - Transport packages for dangerous  
goods - Recycled plastics material

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN ISO 16103:2005 sisaldab Euroopa standardi EN ISO 16103:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN ISO 16103:2005 consists of the English text of the European standard EN ISO 16103:2005.</p> <p>This document is endorsed on 29.09.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p><b>Käsitlusala:</b></p> <p>This International Standard specifies the requirements and test methods for the production of recycled plastics materials to be used for packagings for the transport of dangerous goods. This includes guidance on the quality assurance programme.</p> | <p><b>Scope:</b></p> <p>This International Standard specifies the requirements and test methods for the production of recycled plastics materials to be used for packagings for the transport of dangerous goods. This includes guidance on the quality assurance programme.</p> |
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**ICS** 13.300, 55.020

**Võtmesõnad:**

ICS 13.300; 55.020

English Version

**Packaging - Transport packages for dangerous goods -  
Recycled plastics material (ISO 16103:2005)**

Emballages - Emballages de transport pour marchandises  
dangereuses - Matériaux plastiques recyclés (ISO  
16103:2005)

Verpackung - Verpackungen zur Beförderung gefährlicher  
Güter - Recycling-Kunststoffe (ISO 16103:2005)

This European Standard was approved by CEN on 1 June 2005.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN ISO 16103:2005) 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 January 2006, and conflicting national standards shall be withdrawn at the latest by January 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of ISO 16103:2005 has been approved by CEN as EN ISO 16103:2005 without any modifications.

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dangerous goods — Recycled plastics  
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*Emballages — Emballages de transport pour marchandises  
dangereuses — Matériaux plastiques recyclés*



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## Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16103 was prepared by Technical Committee ISO/TC 122, *Packaging*, Subcommittee SC 3, *Performance requirements and tests for means of packaging, packages and unit loads (as required by ISO/TC 122)*.

## Introduction

The aim of this International Standard is to specify sufficiently the necessary controls for the use of recycled plastics materials as identified in the *United Nations Recommendations on the Transport of Dangerous Goods*, by selection into batches. Packagings produced from each batch of recycled plastics material undergo mechanical testing as in design type testing.

These Recommendations are given legal entity by the provisions of a series of modal agreements for the international transport of dangerous goods:

- the *European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)* (see [1] in the Bibliography);
- the International Civil Aviation Organization's *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (see [2] in the Bibliography);
- the *International Maritime Dangerous Goods Code* (see [3] in the Bibliography);
- the *Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)* (see [4] in the Bibliography).

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



# Packaging — Transport packaging for dangerous goods — Recycled plastics material

## 1 Scope

This International Standard specifies the requirements and test methods for the production of recycled plastics materials to be used for packagings for the transport of dangerous goods. This includes guidance on the quality assurance programme.

NOTE The quality assurance programme for the production of packagings is described in ISO 16106 (see [5] in the Bibliography).

## 2 Normative references

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

ISO 527-1, *Plastics — Determination of tensile properties — Part 1: General principles*

ISO 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics*

ISO 1133, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics*

ISO 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method*

ISO 12048, *Packaging — Complete, filled transport packages — Compression and stacking tests using a compression tester*

ISO 16101, *Packaging — Transport packaging for dangerous goods — Plastics compatibility testing*

ISO 16104, *Packaging — Transport packaging for dangerous goods — Test methods*

*United Nations Recommendations on the Transport of Dangerous Goods — Model Regulations*, ST/SG/AC.10/1/Rev.13: United Nations, ISBN 92-1-139090-7

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **recycled plastics material**

material recovered from used industrial packagings that has been cleaned and prepared for processing into new packagings