



SLOVENSKI STANDARD

SIST-TS CEN/TS 17045:2017

01-maj-2017

Snovi iz izrabljenih avtomobilskih gum - Merila kakovosti za izbiro celih pnevmatik, za postopke predelave in recikliranja

Materials obtained from end of life tyres - Quality criteria for the selection of whole tyres, for recovery and recycling processes

iTeh STANDARD PREVIEW

Matériaux issus de pneumatiques en fin de vie - Critères qualitatifs de sélection de pneumatiques entiers pour des procédés de récupération et de recyclage

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Ta slovenski standard je istoveten z: **CEN/TS 17045:2017**

ICS:

13.030.50	Recikliranje	Recycling
83.160.01	Avtomobilske pnevmatike na splošno	Tyres in general

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en,fr,de

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TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 17045

March 2017

ICS 13.030.50; 83.160.01

English Version

**Materials obtained from end of life tyres - Quality criteria
for the selection of whole tyres, for recovery and recycling
processes**

Matériaux issus de pneumatiques en fin de vie -
Critères qualitatifs de sélection de pneumatiques
entiers pour des procédés de récupération et de
recyclage

Materialien aus Altreifen - Qualitätskriterien für die
Auswahl von ganzen Reifen für Verwertung und
Recycling-Prozesse

This Technical Specification (CEN/TS) was approved by CEN on 2 January 2017 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (CEN/TS 17045:2017) has been prepared by Technical Committee CEN/TC 366 “Materials obtained from end of life tyres”, the secretariat of which is held by UNI.

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

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

The purpose of this document is to establish general and specific criteria for the use of whole tyres in recycling processes and in material recovery into different applications, mainly in the field of civil engineering.

This document does not provide any criteria to select whole tyres to be reused in their original application, i.e. to be mounted on a vehicle. See Figure 1 for an overview of the whole process.

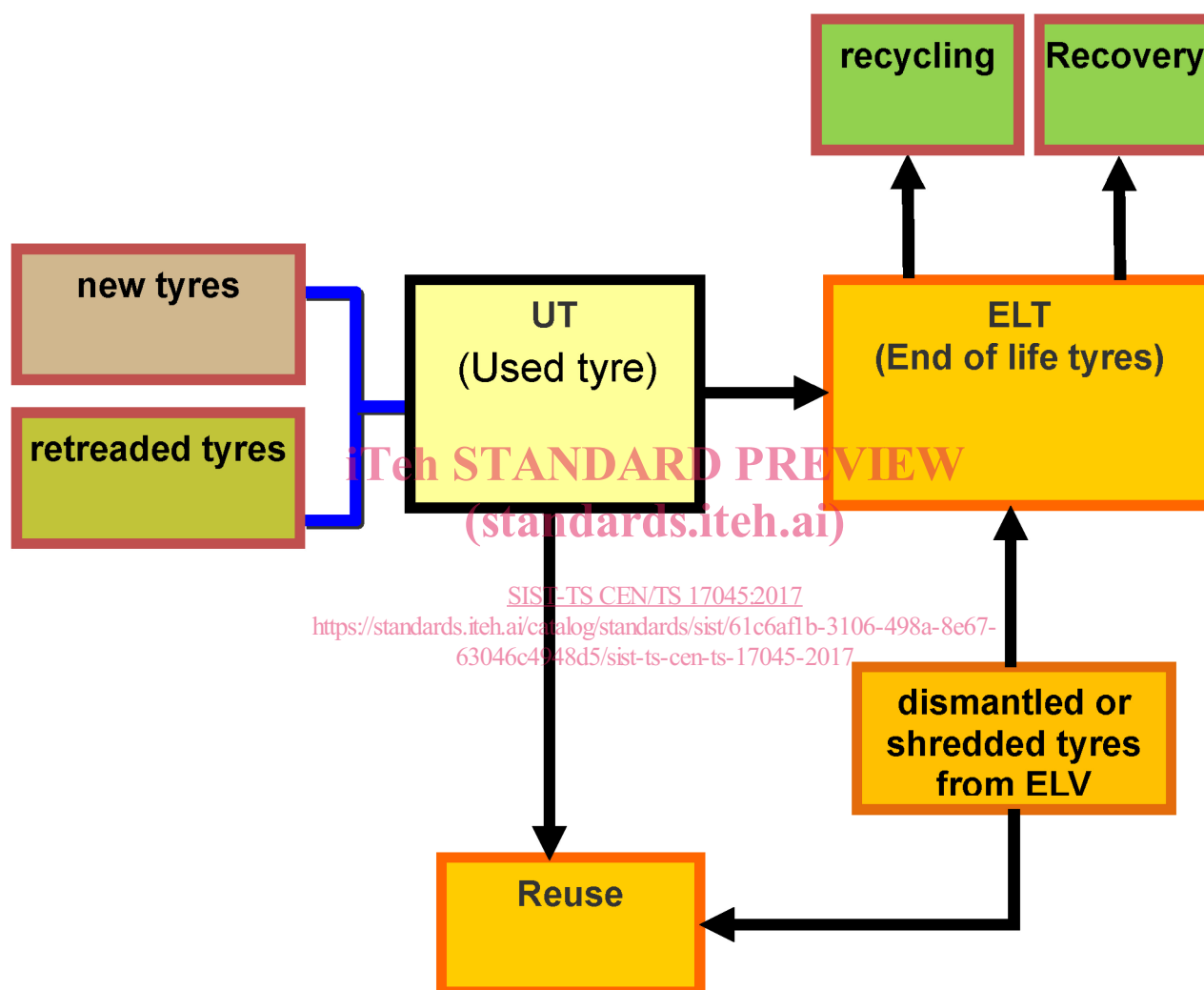


Figure 1 — General scheme of the process to generate end of life tyres and their final processing

The criteria established in this document focus on determining the conditions under which a whole end of life tyre (WELT) can be used for materials recovery.

From a legal point of view, in Europe, end of life tyres are considered as waste, listed in the European Waste Catalogue with code 16.01.03, tyres removed from vehicles.

The criteria for establishing when ELT cease to be waste are ultimately drafted in the EU legislation, by the relevant Directives and their further adoption into national regulations.

The purpose of this document is to facilitate those who make the decision to establish the end of the waste status. This document also aims to overcome the limitations to the use of WELT in certain

applications and to clarify the conditions under which they can be used for recycling or recovery process in compliance with all conditions ensuring no negative impact to health and environment.

The document aims to increase consumer confidence in the applications of used tyres and facilitate the development of the market by the introduction of a specific set of parameters to ensure the quality and consistency of whole tyres to be used for both in recycling and recovery applications.

Compliance with the criteria set in this standard, results in the protection to the human health and the environment.

WARNING — This document does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

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CEN/TS 17045:2017 (E)

1 Scope

This European Standard provides criteria for the selection of whole end-of-life tyres (WELT) under different classes based on their size. It also provides criteria for determination of their suitability to be used in recycling and material recovery processes.

The processes described in this document include sorting of WELT in order to determine their acceptance in recovery and recycling processes.

Criteria regarding the reuse of tyres to be mounted again in a vehicle are not addressed in this document.

This document does not cover the operational performance of the applications or the requirements of the materials for certain applications, which are usually agreed between the manufacturer and the customer.

Solid tyres are excluded from the scope of this document.

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 4223-1, *Definitions of some terms used in the tyre industry — Part 1: Pneumatic tyres*

ISO 18604:2013, *Packaging and the environment — Material recycling*

ISO 4000-1, *Passenger car tyres and rims — Part 1: Tyres (metric series)*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in ISO 4223-1 and the following apply.

3.1 aspect ratio

AA
number obtained by dividing the number expressing the nominal section height in mm by the number expressing the nominal section width in mm

3.2 bead

part of a tyre which is of such shape and structure as to fit the rim and hold the tyre on it

3.3 designated applications

collective term for the final use to which tyre-derived rubber material is put within the designated market sector

3.4 inner diameter

RR
represents the dimension of the rim on which the tyre is mounted, usually expressed in inches

3.5**original shape**

it is the shape created by a revolution toroid, which maintain its shape in any position without any help

3.6**processor**

operator undertaking end of life tyre shredding, crumbing and granulating processes

3.7**quality statement**

documentation accompanying each load or consignment of tyre derived rubber materials supplied

3.8**recovery of whole tyres**

reprocessing of tyres into applications other than the original intended purpose and excluding the generation of energy

Note 1 to entry: This definition applies only to this document and is not the general definition of recovery that can be found in other standards.

3.9**recycling process**

physical, mechanical or chemical process which converts collected and sorted WELT, into secondary (recycled) raw materials, products, excluding energy recovery and the use of the product as a fuel (see ISO 18604:2013)

3.10**reuse of tyres**

repeat deployment of used tyres in their original application

3.11**sidewall**

part of the tyre, excluding the tread, which is visible when the tyre, fitted to a rim, is viewed from the side

3.12**size reduction process**

process of cutting and/or grinding whole tyres using a mechanical equipment

3.13**structure**

technical characteristics of the tyre's carcass

3.14**tyre tread**

part of a pneumatic tyre that normally comes in contact with the ground

3.15**tyre width****WWW**

linear distance between the outsides of the sidewalls, usually expressed in mm