

Materials obtained from end of life tyres - Part 2:
Granulates and powders - Methods for determining the
particle size distribution and impurities, including free
steel and free textile content

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Materials obtained from end of life tyres - Part 2:
Granulates and powders - Methods for determining the
particle size distribution and impurities, including free
steel and free textile content

Matériaux produits à partir de pneus usagés non
réutilisables (PUNR) - Partie 2: Granulats et poudrettes
- Méthodes de détermination de la distribution
granulométrique et des impuretés, y compris la teneur
en fils métalliques et en fibres textiles libres

This European Standard was approved by CEN on 19 November 2018.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 14243-2:2019) has been prepared by Technical Committee CEN/TC 366 “Materials obtained from End-of-Life Tyres (ELT)”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by August 2019, and conflicting national standards shall be withdrawn at the latest by August 2019.

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.

This document together with EN 14243-1 and EN 14243-3 supersede CEN/TS 14243:2010.

EN 14243, Materials obtained from End-of-Life Tyres (ELTs), consists of the following parts:

- Part 1: General definitions related to the methods for determining their dimension(s) and impurities
- Part 2: Granulates and powders – Methods for determining the particle size distribution and impurities including free steel and free textile content
- Part 3: Shreds cuts and chips – Methods for determining their dimension(s) including protruding filaments dimensions

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Introduction

This standard is used in conjunction with the other parts of EN 14243 series. Such series is intended to cover the testing programs needed to characterize each product category as shown on the figure below.

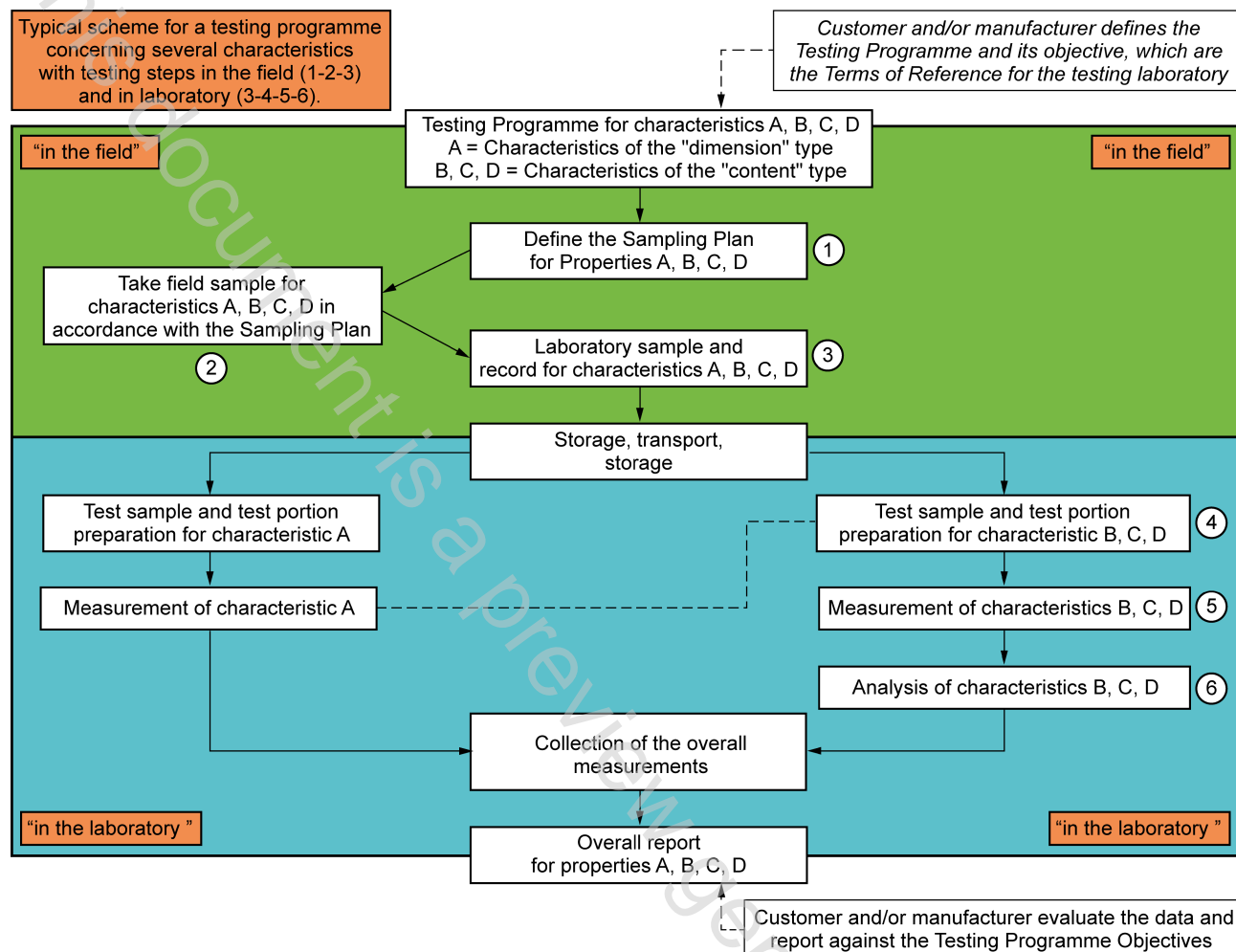


Figure 1 — Typical scheme for a testing programme concerning several characteristics with testing steps in the field and in the laboratory

End-of-life tyres consist mainly of passenger and commercial vehicle tyres, truck, earthmover and agricultural tyres manufactured for distribution in the European market that are no longer suitable for their original purpose. Products from end-of-life tyres are used as a secondary raw material finding a wide range of applications. The principal categories of materials from end-of-life tyres are defined on the basis of their dimension(s) according to EN 14243-1.

1 Scope

This standard provides test methods for the determination of the particle size distribution of granulates and powders, produced from all categories of end-of-life tyres at all steps of the treatment processes as well as for the determination of impurities (including free steel and free textile content).

The methods described in this standard include sample collection and the preparation of a representative sample based on a sampling plan for the purpose of determining particle size distribution and impurities.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 14243-1:2019, *Materials obtained from end of life tyres — Part 1: General definitions related to the methods for determining their dimension(s) and impurities*

EN 933-1, *Tests for geometrical properties of aggregates — Part 1: Determination of particle size distribution — Sieving method*

EN 933-2, *Tests for geometrical properties of aggregates — Part 2: Determination of particle size distribution — Test sieves, nominal size of apertures*

CEN/TS 17188, *Materials obtained from end of life tyres — Sampling method for granulates and powders stored in big-bags*

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 3310-1:2016, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

ISO 3310-2:2013, *Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14243-1:2019 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Categories of products obtained from end-of-life tyres based mainly on their dimensions and particle size distribution

For categories and testing program, refer to EN 14243-1:2019, Clause 4.