

STN P	Materiály získané z pneumatík po skončení životnosti (ELT) Stanovenie skutočnej hustoty granulátov Metóda založená na vodnej pyknometrii	STN P CEN/TS 17189 63 1026
------------------	---	--

Materials obtained from end of life tyres (ELT) - Determination of the true density of granulates - Method based on water pycnometry

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/18

Táto predbežná STN je určená na overenie. Pripomienky zasielajte ÚNMS SR najneskôr do júna 2020.

Obsahuje: CEN/TS 17189:2018

127213

TECHNICAL SPECIFICATION

CEN/TS 17189

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

June 2018

ICS 13.030.50; 83.160.01

English Version

Materials obtained from end of life tyres (ELT) - Determination of the true density of granulates - Method based on water pycnometry

Matériaux obtenus à partir de pneus usagés non
réutilisables (PUNR) - Détermination de la densité
vraie des granulats - Méthode basée sur la pycnométrie
à eau

Materialien aus Altreifen (ELTs) - Bestimmung der
tatsächlichen Dichte von Granulaten - Methode auf der
Grundlage von Wasser-Pyknometrie

This Technical Specification (CEN/TS) was approved by CEN on 2 March 2018 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.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

CEN/TS 17189:2018 (E)

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Principle	5
5	Apparatus	6
5.1	Scales	6
5.2	Pycnometer	6
5.3	Vacuum chamber	6
6	Procedure	6
6.1	Sampling	6
6.2	Method	6
7	Expression of results	7
8	Test report	8
Bibliography		9

European foreword

This document (CEN/TS 17189:2018) 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.

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.

CEN/TS 17189:2018 (E)**Introduction**

True density is a key measurement for product characterization of size-reduced materials such as granulates. This Technical Specification defines a specific method for granulates taking into account that, to obtain an accurate value of true density, a representative sample of the material to be tested has to be taken according to the principle that every particle of the sample that represents the lot will have an equal probability of being included in the sample.

Sampling criteria to assess characteristics of granulates and powders at different stages of a production process by size reduction of end-of-life tyres are given in prEN 14243-2:2017, Clause 5.

Measurement of true density could be useful to identify the nature of particles of different origin, for example, when a customer needs to check if he received granular material derived from End-of-Life Tyres (ELTs) or from products mainly based on EPDM polymers. True density is different between these two products and could be reliable element to discriminate.

Typical values are:

- ELT granulates: 1.16 - 1.22;
- EPDM granulates: 1.4 - 1.6.

1 Scope

This document sets out methods and test protocols used to determine the true density of granulates produced from ELTs based on water pycnometry.

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.

prEN 14243-1:2017, *Materials obtained from end of life tyres — Part 1: General definitions related to the methods for determining their dimension(s) and impurities*

prEN 14243-2:2017, *Materials obtained from end of life tyres — Part 2: Granulates and powders – Methods for determining their dimension(s) and impurities, including free steel and free textile content*

CEN/TS 17188:2018, *Materials obtained from end of life tyres (ELT) — Sampling method for granulates and powders stored in big-bags*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN