
Snovi iz izrabljenih avtomobilskih gum (ELT) - Določanje prave gostote granulotov in praškov - Metoda, ki temelji na vodni piknometriji

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

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

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

Ta slovenski standard je istoveten z: EN 17189:2024

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ICS:

13.030.50	Recikliranje	Recycling
83.160.01	Avtomobilske pnevmatike na splošno	Tyres in general

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English Version

Materials obtained from End-of-Life Tyres (ELT) - Determination of the true density of granulates and powders - Method based on water pycnometry

Matériaux obtenus à partir de pneus usagés non
réutilisables (PUNR) - Détermination de la densité
vraie des granulats et des poudrettes - 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 European Standard was approved by CEN on 25 November 2024.

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European foreword

This document (EN 17189:2024) 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of an identical text or by endorsement, at the latest by June 2025 and conflicting national standards shall be withdrawn at the latest by June 2025.

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 supersedes CEN/TS 17189:2018.

This document includes the following significant technical changes with respect to CEN/TS 17189:2018:

- addition of a sampling and true density determination method for powders in the Title and Scope;
- revision of the used terminology to integrate powders;
- review of the general structure of the document.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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EN 17189:2024 (E)**Introduction**

True density is a key measurement for product characterization of size-reduced materials such as granulates and powders. This document specifies a specific method for granulates and powders considering that, to obtain an accurate value of true density, a representative sample of the material to be tested is 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 various stages of a production process by size reduction of End-of-Life Tyres are given in EN 14243-2.

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 they received granular material derived from End-of-Life Tyres (ELTs) or from products based on EPDM polymers. True density is different between these two products and could be a reliable element to discriminate.

Typical values are:

- ELT granulates: 1.12 - 1.22;
- EPDM granulates: 1.4 - 1.6.

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