

| | | |
|------------------|--|--|
| STN P | Materiály získané z pneumatík po skončení životnosti Oceľové drôty Stanovenie nekovového obsahu | STN P CEN/TS 17308 63 1028 |
|------------------|--|--|

Materials produced from end of life tyres - Steel wire - Determination of the non-metallic content

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. 07/19

Obsahuje: CEN/TS 17308:2019

128920

TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 17308

April 2019

ICS 77.140.65; 83.160.01

English Version

**Materials produced from end of life tyres - Steel wire -
Determination of the non-metallic content**

Pneus usagés non réutilisables (PUNR) - Fils
métalliques - Détermination de la teneur en matériaux
non métalliques

Aus Altreifen gewonnene Materialien - Stahldrähte -
Bestimmung der nicht-metallischen Bestandteile

This Technical Specification (CEN/TS) was approved by CEN on 21 January 2019 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 17308:2019 (E)

| Contents | Page |
|---|-------------|
| European foreword..... | 4 |
| 1 Scope..... | 5 |
| 2 Normative references..... | 5 |
| 3 Terms and definitions | 5 |
| 4 Testing programme..... | 7 |
| 5 Determination of non-metallic content in steel wire..... | 7 |
| 5.1 General..... | 7 |
| 5.2 Preparation of sampling plan and laboratory sample..... | 7 |
| 5.2.1 Principle of correct sampling | 7 |
| 5.2.2 Sampling plan..... | 7 |
| 5.2.3 Definition of lot size | 8 |
| 5.2.4 Sampling point and apparatus | 8 |
| 5.2.5 Size of a sample increment | 8 |
| 5.2.6 Number of sample increments..... | 8 |
| 5.2.7 Metrological characteristics of sampling | 9 |
| 5.2.8 Visual assessment..... | 9 |
| 5.3 Storage and transport of laboratory sample(s) | 9 |
| 5.4 Laboratory sample(s) and test portion(s) | 9 |
| 5.4.1 General principle..... | 9 |
| 5.4.2 Laboratory sample..... | 9 |
| 6 Determination by pyrolysis method..... | 9 |
| 6.1 Principle | 9 |
| 6.2 Apparatus..... | 9 |
| 6.2.1 Analytical scales | 9 |
| 6.2.2 Pyrolysis set-up..... | 9 |
| 6.2.3 Steel wire cleaning apparatus | 10 |
| 6.2.4 Magnets..... | 12 |
| 6.2.5 Tray | 12 |
| 6.3 Sampling..... | 12 |
| 6.4 Determination..... | 12 |
| 6.5 Expression of results..... | 13 |
| 7 Determination by hydrostatic method..... | 13 |
| 7.1 Principle | 13 |
| 7.2 Pretreatment | 13 |
| 7.3 Apparatus..... | 13 |
| 7.3.1 Analytical scale | 13 |
| 7.3.2 Hydrostatic apparatus..... | 13 |
| 7.3.3 Reagents | 16 |
| 7.4 Procedure..... | 16 |
| 7.5 Calculation..... | 16 |
| 7.6 Metrological characteristics..... | 17 |
| 8 Report..... | 17 |
| Annex A (informative) Example of a test report sheet | 19 |

| | |
|--|-----------|
| Annex B (informative) Schematic diagram of a pyrolyzer | 20 |
| Annex C (informative) Explanation of the formula used in the hydrostatic method | 21 |
| Bibliography | 23 |

CEN/TS 17308:2019 (E)**European foreword**

This document (CEN/TS 17308:2019) 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.

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.

1 Scope

This document provides two different methods for the quantitative estimation of non-metallic content remaining adhered to the steel wire obtained from the recovery of materials from end-of-life tyres.

The pyrolysis method is considered as the reference method while the hydrostatic method is considered as an in-situ method.

This European Standard includes sample collection and the preparation of representative samples based on a sampling plan for the purpose of their characterization.

This European Standard does not cover the operational performance or fitness for use of the materials which are deemed to be a function of agreements between the manufacturer and the customer.

This European Standard does not purport to address all the safety concerns, if any, associated with its use. This European Standard does not establish appropriate safety and health practices and does not determine the applicability of regulatory limitations prior to its use.

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.

CEN/TS 14243, *Materials produced from end of life tyres — Specification of categories based on their dimension(s) and impurities and methods for determining their dimension(s) and impurities*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN