

---

**Bioizdelki - Delež bioogljika - Ugotavljanje deleža bioogljika z radioogljčno metodo - Popravek AC**

Bio-based products - Bio-based carbon content - Determination of the bio-based carbon content using the radiocarbon method

Biobasierte Produkte - Gehalt an biobasiertem Kohlenstoff - Bestimmung des Gehalts an biobasiertem Kohlenstoff mittels Radiokarbonmethode

Produits biosourcés - Teneur en carbone biosourcé - Détermination de la teneur en carbone biosourcé par la méthode au radiocarbone

<https://standards.iteh.ai/catalog/standards/sist/ab835223-8d7e-46ea-9c7b-ee96e266b995/sist-en-16640-2017-ac-2017>

**Ta slovenski standard je istoveten z: EN 16640:2017/AC:2017**

**ICS:**

13.020.55	Biološki izdelki	Biobased products
71.040.40	Kemijska analiza	Chemical analysis

**SIST EN 16640:2017/AC:2017****en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 16640:2017/AC:2017](https://standards.iteh.ai/catalog/standards/sist/ab835223-8d7e-46ea-9c7b-ee96e266b995/sist-en-16640-2017-ac-2017)

<https://standards.iteh.ai/catalog/standards/sist/ab835223-8d7e-46ea-9c7b-ee96e266b995/sist-en-16640-2017-ac-2017>

EUROPEAN STANDARD

**EN 16640**

NORME EUROPÉENNE

July 2017  
Juillet 2017  
Juli 2017

EUROPÄISCHE NORM

ICS 13.020.55; 71.040.40; 83.040.01

English version  
Version Française  
Deutsche Fassung

Bio-based products - Bio-based carbon content - Determination of the bio-based carbon content using the radiocarbon method

Produits biosourcés - Teneur en carbone biosourcé - Détermination de la teneur en carbone biosourcé par la méthode au radiocarbone

Biobasierte Produkte - Gehalt an biobasiertem Kohlenstoff - Bestimmung des Gehalts an biobasiertem Kohlenstoff mittels Radiokarbonmethode

This corrigendum becomes effective on 12 July 2017 for incorporation in the official English version of the EN.

STANDARD PREVIEW

(standards.iteh.ai)

Ce corrigendum prendra effet le 12 juillet 2017 pour incorporation dans la version anglaise officielle de la EN.

[SIST EN 16640:2017/AC:2017](https://standards.iteh.ai/catalog/standards/sist/ab835223-8d7e-46ea-9c7b-ec96320175/sist-en-16640-2017-ac-2017)[https://standards.iteh.ai/catalog/standards/sist/ab835223-8d7e-46ea-9c7b-](https://standards.iteh.ai/catalog/standards/sist/ab835223-8d7e-46ea-9c7b-ec96320175/sist-en-16640-2017-ac-2017)

Die Berichtigung tritt am 12. Juli 2017 zur Einarbeitung in die offizielle Englische Fassung der EN in Kraft.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2017 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.  
Tous droits d'exploitation sous quelque forme et de quelque manière que ce soit réservés dans le monde entier aux membres nationaux du CEN.  
Alle Rechte der Verwertung, gleich in welcher Form und in welchem Verfahren, sind weltweit den nationalen Mitgliedern von CEN vorbehalten.

Ref. No.: EN 16640:2017 E

## EN 16640:2017/AC:2017 (E)

**1 Modifications to Annex D***Delete*

"D.5 Principle

The accelerator mass spectrometry (AMS) method determines the presence of  $^{14}\text{C}$  directly. The atoms in the sample are converted into a beam of ions. The formed ions are accelerated in an electric field, deflected in a magnetic field and detected in ion detectors resulting in the determination of the relative isotope abundances of these ions.

AMS uses a high potential electrostatic field, which serves not only to accelerate them but also to specifically form only  $\text{C}^{n+}$  ions ( $n = 1, \dots, 4$ ) that are allowed into the spectrometer, excluding all other ionic species. This greatly enhances sensitivity without compromising selectivity. As the  $^{14}\text{C}$  is determined in graphite (carbon), all the carbon in the samples has to be converted into graphite before analysing.

With AMS, the modern fraction in the carbon, present in the sample, is determined. The total carbon content is not determined with this technique and shall be determined separately."

*Subsequent subclauses renumbered:*

D.5 Procedure

D.6 Calculation of the results

**2 Modifications to Annex E**

**iTeh STANDARD PREVIEW**  
(standards.iteh.ai)

*Insert*

"E.2 Principle

The accelerator mass spectrometry (AMS) method determines the presence of  $^{14}\text{C}$  directly. The atoms in the sample are converted into a beam of ions. The formed ions are accelerated in an electric field, deflected in a magnetic field and detected in ion detectors resulting in the determination of the relative isotope abundances of these ions.

AMS uses a high potential electrostatic field, which serves not only to accelerate them but also to specifically form only  $\text{C}^{n+}$  ions ( $n = 1, \dots, 4$ ) that are allowed into the spectrometer, excluding all other ionic species. This greatly enhances sensitivity without compromising selectivity. As the  $^{14}\text{C}$  is determined in graphite (carbon), all the carbon in the samples has to be converted into graphite before analysing.

With AMS, the modern fraction in the carbon, present in the sample, is determined. The total carbon content is not determined with this technique and shall be determined separately."

*Subsequent subclauses renumbered:*

E.3 Reagents and materials

E.4 Apparatus

E.5 Procedure

E.6 Calculation of the results