



SLOVENSKI STANDARD
oSIST prEN 15365:2024

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Sodobna tehnična keramika - Mehanske lastnosti keramičnih vlaken pri visokih temperaturah v nereaktivnem okolju - Ugotavljanje lezenja po metodi hladnega spajanja (cold end method)

Advanced technical ceramics - Mechanical properties of ceramic fibres at high temperature in a non-reactive environment - Determination of creep behaviour by the cold grip method

Hochleistungskeramik - Mechanische Eigenschaften von Keramikfasern bei hohen Temperaturen in einer reaktionsfreien Umgebung - Bestimmung des Kriechverhaltens im Kaltverbindungsverfahren

Céramiques techniques avancées - Propriétés mécaniques des fibres céramiques à haute température sous environnement non réactif - Détermination du comportement au fluage par la méthode des mors froids

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English Version

**Advanced technical ceramics - Mechanical properties of
ceramic fibres at high temperature in a non-reactive
environment - Determination of creep behaviour by the
cold grip method**

Céramiques techniques avancées - Propriétés
mécaniques des fibres céramiques à haute température
sous environnement non-réactif - Détermination du
comportement au fluage par la méthode des mors
froids

Hochleistungskeramik - Mechanische Eigenschaften
von Keramikfasern bei hohen Temperaturen in einer
reaktionsfreien Umgebung - Bestimmung des
Kriechverhaltens im Kaltverbindungsverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 184.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Contents		Page
European foreword		3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Principle	7
5	Significance and use	9
6	Apparatus	9
6.1	Test installations	9
6.2	Load train	9
6.3	Test chamber	9
6.4	Set-up for heating	10
6.5	Temperature measurement	10
6.6	Control of deformation	10
6.7	Data recording system	10
6.8	Determination of fibre cross sectional area	10
7	Test specimens	10
7.1	Test specimen preparation	10
7.2	Number of test specimens	12
8	Test procedures	12
8.1	Determination of the temperature profile in the furnace	12
8.2	Test set-up: Determination of the temperature profile and of the different lengths of each temperature zone in the furnace	12
8.3	Test set-up: Loading considerations	12
8.4	Test technique	12
8.5	Test validity	14
9	Calculation of results	14
9.1	Creep stress	14
9.2	Creep strain at time t	15
10	Test report	16
Bibliography		17

European foreword

This document (prEN 15365:2024) has been prepared by Technical Committee CEN/TC 184 “Advanced technical ceramics”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15365:2010.

EN 15365:2024 includes the following significant technical changes with respect to EN 15365:2010:

- title updated;
- editorial revision.

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prEN 15365:2024 (E)**1 Scope**

This document specifies the conditions for the determination of the tensile creep deformation and failure behaviour of single filaments of ceramic fibres at high temperature and under test conditions that prevent changes to the material as a result of chemical reaction with the test environment.

This document applies to continuous ceramic filaments taken from tows, yarns, braids and knittings, which have strains to fracture less than or equal to 5 %.

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 60584 (all parts), *Thermocouples*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

3.1 creep

time-dependent increase of gauge length starting from the time when the constant specified level of force is reached

3.2 creep threshold temperature

T_t
minimum temperature at which creep is detected

3.3 specimen temperature

T
temperature which varies along the fibre length in the cold grips case

Note 1 to entry: See 8.2.

3.4 specimen temperature in the zone

T_i
temperature defined as: $T_t \leq T_i \leq T_t + i \Delta T$

3.5 total length

L
total length of the ceramic filament between the grips