



**SLOVENSKI STANDARD**  
**SIST EN 3475-414:2006**  
**01-julij-2006**

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Aerospace series - Cables, electrical, aircraft use - Test methods - Part 414: Differential scanning calorimeter (DSC test)

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 414: DSC Verfahren

**iTeh STANDARD PREVIEW**

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais - Partie 414 : Essai DSC

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Ta slovenski standard je istoveten z: **EN 3475-414:2005**

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**ICS:**

49.060

**SIST EN 3475-414:2006**

**en**

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ICS 49.060

English Version

Aerospace series - Cables, electrical, aircraft use - Test  
methods - Part 414: Differential scanning calorimeter (DSC test)

Série aérospatiale - Câbles électriques à usage  
aéronautique - Méthodes d'essais - Partie 414 : Essai DSC

Luft- und Raumfahrt - Elektrische Leitungen für  
Luftfahrtverwendung - Prüfverfahren - Teil 414: DSC  
Verfahren

This European Standard was approved by CEN on 12 September 2005.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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## Foreword

This European standard (EN 3475-414:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

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 April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This standard specifies a method of measuring the level of sintering of a PTFE tape on a finished cable.

It shall be used together with EN 3475-100 and ASTM-D-4591-01.

## 2 Normative references

The following referenced documents are indispensable for the application 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 3475-100, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 100: General*.

ASTM-D-4591-01, *Standard Test Method for Determining Temperatures and Heats of Transitions of Fluoropolymers by Differential Scanning Calorimetry*.<sup>1)</sup>

## 3 Preparation of a specimen

In accordance with ASTM-D-4591-01.

## 4 Apparatus

In accordance with ASTM-D-4591-01.

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## 5 Method

[SIST EN 3475-414:2006](#)

### 5.1 Procedure

<https://standards.iteh.ai/catalog/standards/sist/19de866a-bcd6-4fba-a4d6-aa16e1eb9e17/sist-en-3475-414-2006>

In accordance with ASTM-D-4591-01.

Temperature range for testing: from 270 °C to 380 °C.

Temperature range for the calculation of the melting point energy: from 290 °C to 360 °C.

### 5.2 Requirements

To achieve an acceptable PTFE tape sintering:

- the melting point temperature shall be  $(327 \pm 4)$  °C with a 15 J/g to 25 J/g energy;
- the recrystallization temperature shall be 310 °C minimum;
- the second melting point shall not exceed an energy of 25 J/g.

The manufacturer shall record in the test report which DSC apparatus have been used.

NOTE The values recorded in the qualification test report shall be taken for reference of the manufacturing process. If it is necessary to carry out test on production cable, test shall be made with the same DSC apparatus and the values shall be compared to the reference values.

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1) Published by: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA.