



SLOVENSKI STANDARD SIST EN 16602-70-13:2015

01-april-2015

Nadomešča:
SIST EN 14099:2004

Zagotavljanje varnih proizvodov v vesoljski tehniki - Merjenje lupilne in odtržne trdnosti prevlek in oblog z uporabo trakov, občutljivih na tlak

Space product assurance - Measurements of the peel and pull-off strength of coatings and finishes using pressure-sensitive tapes

Raumfahrtproduktsicherung - Ermittlung der Schäl- und Abziehfestigkeit von Überzügen und Beschichtungen unter Anwendung von Haftbändern

Assurance produit des projets spatiaux - Mesure de la force d'arrachement des revêtements et apprêts de rubans auto-adhésifs

Ta slovenski standard je istoveten z: EN 16602-70-13:2015

ICS:

49.040	Prevleke in z njimi povezani postopki, ki se uporabljajo v letalski in vesoljski industriji	Coatings and related processes used in aerospace industry
49.140	Vesoljski sistemi in operacije	Space systems and operations

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EUROPEAN STANDARD

EN 16602-70-13

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2015

ICS 49.040; 49.140

Supersedes EN 14099:2001

English version

Space product assurance - Measurements of the peel and pull-off strength of coatings and finishes using pressure-sensitive tapes

Assurance produit des projets spatiaux - Mesure de la force d'arrachement des revêtements et apprêts de rubans auto-adhésifs

Raumfahrtproduktsicherung - Ermittlung der Schäl- und Abziehfestigkeit von Überzügen und Beschichtungen unter Anwendung von Haftbändern

This European Standard was approved by CEN on 11 October 2014.

CEN and CENELEC 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 CEN-CENELEC Management Centre or to any CEN and CENELEC 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 and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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Foreword

This document (EN 16602-70-13:2015) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16602-70-13:2015) originates from ECSS-Q-ST-70-13C Rev.1.

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 July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document supersedes EN 14099:2001.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g.: aerospace).

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According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This Standard details a test in which pressure-sensitive tapes are used to assess the suitability of, for example, coatings, paints, films and other thin materials, proposed for use on spacecraft and associated equipment.

Surface coatings, such as thermal control paints and corrosion protection coatings, are affected, both on the ground and after launch, by exposure to the environment.

It is therefore important that the adhesion of the coating to the relevant substrate remains at an acceptable level after exposure to the relevant environmental condition.

The following materials and assemblies are covered by this test method:

- organic coating, e.g. varnishes, paints and plastic films;
- metallic finishes on, for example, printed circuit boards, second-surface mirrors, thermal radiators, plastic films;
- adhesive layers;
- composite thin films;
- small assemblies, e.g. solar cells having attached glass covers.

This standard may be tailored for the specific characteristics and constraints of a space project in conformance with ECSS-S-ST-00.

Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this ECSS Standard. For dated references, subsequent amendments to, or revision of any of these publications do not apply. However, parties to agreements based on this ECSS Standard are encouraged to investigate the possibility of applying the more recent editions of the normative documents indicated below. For undated references, the latest edition of the publication referred to applies.

EN reference	Reference in text	Title
EN 16601-00-01	ECSS-S-ST-00-01	ECSS system – Glossary of terms
EN 16602-10-09	ECSS-Q-ST-10-09	Space product assurance – Nonconformance control system
EN 16602-20	ECSS-Q-ST-20	Space product assurance – Quality assurance
EN 16602-40	ECSS-Q-ST-40	Space product assurance – Safety
EN 16602-70-02	ECSS-Q-ST-70-02	Space product assurance – Thermal vacuum outgassing test for the screening of space materials

Terms, definitions and abbreviated terms

3.1 Terms from other standards

For the purpose of this Standard, the terms and definitions from ECSS-S-ST-00-01 apply, in particular for the following terms:

requirement

3.2 Terms specific to the present standard

3.2.1 batch

quantity produced at one operation.

(NOTE) One batch can be subdivided into several lots.

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3.3 Abbreviated terms

For the purpose of this Standard, the abbreviated terms from ECSS-S-ST-00-01 and the following apply:

Abbreviation	Meaning
RH	relative humidity

4 Principles

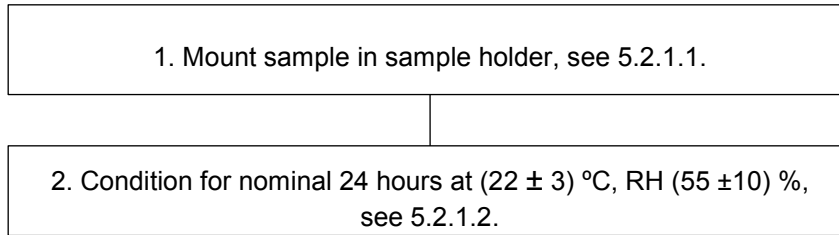
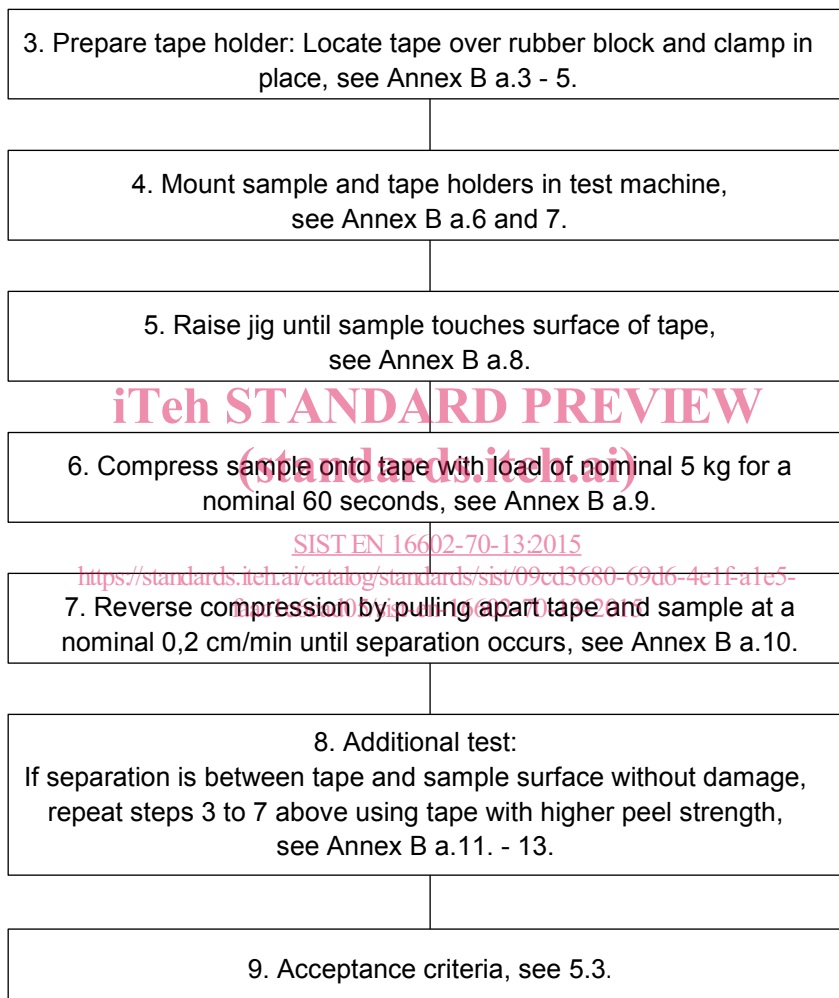
This Standard details a test in which pressure-sensitive tapes are used to assess the suitability of, for example, coatings, paints, films and other thin materials, proposed for use on spacecraft and associated equipment.

This test has nine test steps as outlined in Figure 4-1.

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Preparation: See 5.2.1**Peel and pull-off test: See 5.2.2****Figure 4-1 Test procedure flow diagram**